

CENTRE ON SKILLS, KNOWLEDGE
AND ORGANISATIONAL
PERFORMANCE

**Governing Education and Training Systems in England: Some
Lessons from the United States**

SKOPE Working Paper No. 121, January 2015

Cathleen Stasz, RAND Corporation



Department
of Education

Editor's Foreword

SKOPE Publications

This series publishes the work of the members and associates of SKOPE. A formal editorial process ensures that standards of quality and objectivity are maintained.

**Orders for publications should be addressed to
SKOPE, Department of Education, University of Oxford,
Oxford OX2 6PY**

**Research papers can be downloaded from the website:
www.skope.ox.ac.uk**

ISSN 1466-1535

Abbreviations

BIS	UK Department for Business, Innovation and Skills
CTE	career and technical education
DfE	Department for Education
EFA	Education Funding Agency
HEFCE	Higher Education Funding Council in England
LEP	local enterprise partnership(s)
Perkins IV	Carl D. Perkins Career and Technical Education and Improvement Act of 2006 (US)
QCF	Qualifications and Credit Framework
SBCTC	State Board for Community and Technical Colleges (Washington State)
SFA	Skills Funding Agency
SSC	sector skills council
THECB	Texas Higher Education Coordinating Board
TSSB	Texas Skills Standards Board
TWC	Texas Workforce Commission
TWIC	Texas Workforce Investment Council
UKCES	UK Commission on Education and Skills
WTECB	Workforce Training and Education Coordinating Board (Workforce Board) (Washington State)
WIA	Workforce Investment Act of 1998 (US)
WIB	workforce investment board(s)

Abstract

Recent changes in education and training policy in England continue to focus on creating a ‘demand-led’ system in an environment where public funds are dwindling and where more responsibility is being devolved away from central government. This raises questions about governance of the system, among others, and the roles that key system actors are expected to play. This paper broadly discusses education and training system policies that focus on workforce development in England and the US, especially with regard to the role of further education colleges (community colleges in the US), employer engagement, and local workforce development bodies. The focus is on governance at the post-secondary level, as the main interest is skills development after compulsory education. The US and England share a number of features and problems that affect the education and training system, such as lack of employer involvement, the lower status of sub-baccalaureate education and training providers despite their central role in delivering vocational education and training programmes, and insufficient links between education and training provision and the labour market. The most striking differences between the American and English systems are the governance and authority structures, which are stronger in the US and afford greater scope for strategic planning by states and between states and the federal level. The experiences of community colleges in working with employers to provide workforce training may be worth further investigation as further education colleges further develop this type of provision. The US experience is less instructive with regard to quality assurance or increasing employers’ engagement with education.

INTRODUCTION

Skills and workforce development policy in England continues to both remain the same and to evolve. Simply put, it remains the same in focusing on increasing supply as a solution to perceived problems with workforce skills, with little or no activity on increasing demand for skills or on improving utilisation. Policy has evolved mainly in creating further mechanisms to involve employers and to have them assume greater responsibility, albeit on a voluntary basis (Keep 2013; Payne and Keep 2011). For example, the Employer Ownership of Skills pilot encourages employers to compete for funds to support new and innovative training approaches.

Policy has also evolved in affording new roles for the further education system and in establishing local enterprise partnerships (LEPs) as the 'key vehicle for delivering sub-national economic development in England' (Payne and Keep 2011, 19). For instance, further education colleges are being encouraged to expand and develop the delivery of higher education through the introduction of a pool of lower-fee places, and at the same time to compete with private training providers for public funds tied to skills training (Norton 2012). The LEPs are joint local authority-business bodies with a board comprised of business and council representatives, chaired by a business leader. Originally, LEPs received no direct funding from central government (unlike the regional development agencies that performed a similar function under the previous government) but have had to bid competitively for funds from a new regional growth fund. Now, each LEP gets a small core grant to cover staffing (minimal) and some running costs from government.

Two main government departments formulate education and training policy: the Department for Education (DfE) and the Department for Business, Innovation and Skills (BIS). The DfE is responsible for education up to the age of 18 and funds vocational training for this group through the Education Funding Agency (EFA). The BIS is responsible for adult skills development for those aged 19 and over and set out its strategy for skills development in 'Skills for Sustainable Growth' (2010). It discharges funding through the Skills Funding Agency (SFA), which funds further education and other providers of skills training in England. The BIS also manages the Higher Education Funding Council in England (HEFCE), which funds prescribed courses of higher education in further education colleges (for example, higher national diplomas, higher national certificates, foundation degrees,

bachelor's degrees). These departments work together on apprenticeships for 16–24-year-olds and on new policy initiatives such as the Employer Ownership of Skills pilot (UKCES 2013).

The UK Commission on Education and Skills (UKCES), an executive, non-departmental public body established in 2008, provides strategic leadership and advice to the government on skills issues and promotes investment in skills. Its commissioners represent large and small employers, trade unions, the voluntary sector, further and higher education sectors and the devolved administrations. As a UK-wide advisory body it is meant to ensure a strategic approach across government departments and devolved administrations. It is working with the government to develop approaches aimed to engage and empower employers. The other main vehicle for employer engagement is the sector skills councils (SSCs), independent, employer-led UK-wide organisations. Eighteen SSCs and five sector skills bodies work with over half a million employers to define skill needs and skill standards in their industries.¹ They are licensed by the government to provide employer input into programmes and qualifications, and compete for funding annually to develop new standards and update existing ones (UKCES 2013). This supports a shift in emphasis whereby employers are meant to either take the initiative or show initiative and compete for funds, rather than being provided with grants or incentives to carry out an agenda set by government.

The institutional-provider landscape is diverse and considered by some as a strong feature of the education and training system. It includes primary and secondary schools, further education colleges, universities, and private training providers (over 10,000 in England).² Also available are both part-time and distance-learning options to meet the needs of working adults. Quality assurance is pervasive and multifaceted, and includes institutional audits, direct inspection by government bodies, and student surveys.

With regard to skills and workforce development, further education plays a central role in offering a wide range of courses at all levels, from basic skills and A-level provision to university degrees. Further education colleges provide most vocational programmes at levels 4 and 5 and, along with training providers, are major providers of vocational programmes for adults. Their relative autonomy allows them to be flexible and entrepreneurial and as such

¹ For further information see <http://fisss.org/sector-skills-council/> (accessed 9 January 2014).

² Two other provider types are university technical colleges that provide technical education for 14–19-year-olds, usually up to level 3 (44 in various stages of development) and national skills academies.

provide a strong foundation for the development of new programmes (Musset and Field 2013).

The UK is somewhat unusual in having a qualifications-based system whereby academic and vocational qualifications are developed and assessed by independent, often for-profit awarding organisations, with oversight by a government regulator. All qualifications are described by type and level. Levels are defined by two partly overlapping frameworks that group qualifications against demands placed on learners and show both progression routes and relationships between them.³ Up until now vocational qualifications are built from units in the Qualification and Credit Framework, which are derived from national occupation standards developed by the sector skills councils.

Some issues with the current education and training system in England

The prior discussion highlights how recent policy changes under the coalition government affect three important stakeholders in the education and training system: further education colleges, employers, and local authorities. Prior efforts to engage these actors in a strategic way have not always been successful. In addition, the institutions and policy activity are all facing reduced budgets under the government's austerity measures (Payne and Keep 2011; Pugalis et al. 2012).

Although new skills policy suggests a strong role for further education colleges in reaching the government's goals for increasing the supply of skills, the sector has a history of being neglected by policymakers and faces both greater competition in the post-16 education and training market and reductions in public expenditure. One estimate has the budget for further education reduced by a quarter, from £4.3 billion to £3.2 billion by 2014–15 (Payne and Keep 2011). The SFA's decision to route funds in line with learners' and employers' choices creates a broader, more competitive training market. These conditions leave the

³ The National Qualifications Framework includes all general and vocational qualifications in England, Wales, and Northern Ireland and consists of nine levels (entry level 0 to vocational qualifications level 8). It sits alongside the Qualifications and Credit Framework (QCF) developed from 2005, but soon to be abolished. In the QCF, vocational qualifications are made up of units, each with a credit value. This allows for flexibility, as units can be combined. But it also increases complexity, with over 18,000 accredited qualifications that attract government funding and about 180 awarding organisations. The parallel Framework for Higher Education Qualifications maps from level 4 (higher national certificates) to level 8 (doctoral degrees) (Musset and Field 2013).

sector's current and future positions somewhat uncertain (Norton 2013). It is also varied, with wide differences in colleges' abilities to link effectively with local employers (Hughes and Smeaton n.d.). High-profile criticisms of England's vocational education system (for example, Wolf 2011) also cast a shadow on the quality of the further education sector because such courses are a main part of their curriculum offerings.

Various mechanisms for engaging employers in the education and training systems have been tried in the past and problems with engaging employers have been duly noted. Analyses of the role of employers in developing the diploma qualifications, for example, found that employers lacked the power to implement some of their ideas because the system places authority for qualifications development in the hands of others (Ertl et al. 2009; Ertl and Stasz 2010; Ertl and Hayward 2010). The sheer complexity of the qualification system also inhibits employer engagement at the local and national levels (Musset and Field 2013).

The move from regional to local workforce planning with the introduction of the LEPs has raised concerns, as mentioned above, about whether LEPs will have sufficient resources or power. The government will take over some of the responsibilities that rested with the regional development agencies (for example, sector leadership, innovation, business support). Although LEPs are meant to work with colleges and training providers to discuss among other things how to generate demand for agreed *strategic* priorities, as Payne and Keep (2011, 25) point out:

With funding being driven by learner demand (based on the demand in the previous year) and what employers are willing to pay for to meet their *immediate* needs, it is not clear how LEPs will be in a position to *strategically* shape local skills provision in accordance with the current, emerging and future economic development needs of their areas.

Evaluators have recently noted other problems with the education and training system. Among these are the small proportion of students who pursue vocational upper-secondary qualifications and apprenticeships (and, if pursued, often at a lower level than upper secondary); less clear-cut pathways for vocational students than for academic students; no automatic progression from one level to the next; too little vocational provision at post-secondary level, relative to potential demand; and an overly complicated qualifications system that supports multiple and overlapping qualifications (Musset and Simon 2013). In

addition, researchers and employers regularly question the value of vocational qualifications in the labour market (for example, Machin and Vignoles 2006; Wolf 2011).

Aim of this paper

Against this backdrop, the aim of this paper is to explore other perspectives on governance of education and training, with an emphasis on skills and workforce development policy. It draws examples from the US rather than Europe, because of some relevant similarities between the US and England. These include:

- The voluntarist nature of the English and US systems, which creates challenges for engaging employers, unlike in Europe where strong social partnerships and policy mandates provide strong incentives for employers
- Similar concerns about citizens lacking preparation for the 21st-century workforce
- Difficult financial circumstances which affect public funding for education and training institutions
- A market-driven governance model where vocational education is oriented toward demands of the labour market and requirements of employers and encourages private providers (Rauner and Wittig 2010)
- Emphasis away from ‘rational planning’ and management approaches toward market-driven, ‘strategic investment’ approaches (McGuinness 2001b)
- Organisational similarities in the central role played by further education and community colleges in England and the US, respectively. Both, for example, have been charged with the mission of providing access to higher education, especially for students from lower-income and minority backgrounds and operate as comprehensive institutions that offer a variety of programmes in a community (Dougherty 2009)

The paper broadly discusses education and training system policies that focus on workforce development, especially with regard to the role of further education colleges (community colleges in the US), employer engagement, and local workforce development bodies. The focus is on governance at the post-secondary level, as the main interest is skills development after compulsory education.

The paper provides an overview of the US, and then focuses on two states: Washington and Texas. These have been selected in consultation with the literature and advice from US-based experts as interesting examples that would shed light on the roles of community colleges, employers and local workforce development bodies.

According to a recent OECD review of post-secondary vocational education and training (VET), Washington State's governance is responsive to employers' needs and is supported by a strong evaluation and accountability culture and active engagement of business and labour representatives in workforce development policy (Kuczera and Field 2013, 139). Texas has one of the more centralised governance structures of high-population states. It is unusual in the responsibilities given to its governing board, the Texas Higher Education Coordinating Board (THECB).

The investigation is based mainly on review of the literature and interviews with three individuals knowledgeable about the state systems. The review addresses five broad questions:

- How are governance and management structured?
- How are responsibility and power shared?
- What are the system's objectives, functions and roles?
- How does the system assure quality, hold institutions accountable, and align institutions with societal and labour market needs?
- What are the relevant lessons for evolving education and training systems policy in England?

The paper begins with a brief overview of skills policy development in the US federal system and how it is meant to affect state policy in the national interest.

OVERVIEW OF SKILLS DEVELOPMENT IN THE US

The US is a federal system whereby the constitution gives states the main responsibility for public education and training.⁴ National aims are directed through federal legislation, which provides funds to states in exchange for certain behaviours. Responsibility is transferred down to state and local actors who have some latitude to determine details of programme delivery. In the area of education and training for skill development, the most important federal laws are the 1998 Workforce Investment Act (WIA)⁵ and the Carl D. Perkins Career and Technical Education and Improvement Act of 2006 (Perkins IV).

WIA tasked governors of states desiring funding to establish local workforce investment areas⁶ and state workforce investment boards (WIBs), with a majority representation from business. The state board develops a five-year strategic plan (four years under the Workforce Innovation and Opportunity Act [WIOA]) to be submitted to the Secretary of Labour, advises the governor on developing the workforce investment system, and gathers statewide employment statistics. The plan describes how the state will implement key requirements of the Act.⁷ Local WIBs, in partnership with local elected officials, are responsible for the design and oversight of workforce systems in support of local economies. The local WIB members are appointed by local elected officials, and the WIB must have a majority of business representatives and a business chairperson. One intention of the legislation was to focus more on the demand-side and to align employment policy more closely with economic development. Subsequent federal administrations have carried on in the same vein (Froy and Giguere 2010; WIOA 2014). The WIA establishes performance measures (for example, rates of entry to unsubsidised employment, retention, earnings six months after entry, educational

⁴ States and localities provide the bulk of funding for public post-secondary education. For example, in 2011–12 the state and local revenue for full-time equivalent students at public community colleges was twice as large as the federal contribution; at four-year institutions it was one-third larger. In comparison to 2006–07, the federal revenues have increased while state and local have decreased. Available at: http://nces.ed.gov/programs/coe/indicator_cud.asp.

⁵ In May 2014, after 11 years of discussion, Congress proposed the Workforce Innovation and Opportunity Act (WIOA) as reauthorisation of the WIA. The WIOA combines separate legislation proposed by the House of Representative and Senate committees, and will take effect in July 2015. Significant changes to arrangements under the WIOA are noted where relevant.

⁶ Under the WIOA the governor has fewer powers in that he or she must consult with local boards and chief local officials to identify the planning regions.

⁷ Federal policy instruments often mandate that specific resources be directed to ‘special populations’, such as veterans, individuals with disabilities, youth, or the long-term unemployed.

attainment),⁸ but states and localities negotiate levels of performance with the federal government. Measures of customer satisfaction with services received are also established for participants and employers. Each designated local area must establish a one-stop delivery system through which core employment-related services or access to services are provided. The WIOA specifies that services represent a career development pathway for participants in education and training in line with employment demand. It also gives states greater leeway than the WIA in determining the services it provides.

Perkins IV also devolved greater authority to sub-federal levels, with design and implementation of career and technical education⁹ programmes allocated to states and local school systems. Local authorities have substantial influence over design of training programmes, within some restrictions. States must submit plans that outline how they intend to carry out requirements in the legislation, for example, the requirement to offer a programme of study that combines at least two years of secondary education with post-secondary education or training that may extend to a baccalaureate degree. In turn, states require local education agencies to submit plans. States are required to submit annual reports on how funds are used and evaluation data on effectiveness of programmes that receive those funds. These ‘core indicators of performance’ can be taken as statements of federal priorities. Like earlier authorisations, Perkins IV uses incentives and accountability mechanisms to steer states in adopting particular curriculum, standards, or other improvements (Stasz and Bodilly 2004; Stone and Lewis 2010). Like the WIA, core performance indicators are established by law in Perkins IV, but levels are determined by states and localities. Each state must designate an eligible agency responsible for planning and overseeing the use of federal funds. At the local level, Perkins IV guidance indicates that local programmes are expected to have advisory committees of employers and union representatives to help ensure that instruction is aligned with needs in the workplace.

Although decentralisation enhances flexibility in economic development, employment, and vocational training at the state and local levels, it poses challenges for policy integration and coordination at national, regional, and state levels. The WIA attempts to encourage

⁸ The WIOA proposes a single set of six outcome metrics to every federal workforce programme under the Act. It would eliminate 15 programmes under the WIA in order to streamline the system.

⁹ ‘Career and technical education’ (CTE) has replaced ‘vocational education’ in the American education and training system. In this paper vocational education and training and CTE are used interchangeably.

integration by requiring local areas to establish at least one comprehensive ‘one-stop centre’ through which job seekers and employers can access services. The US Department of Education developed the Career Clusters Initiative (endorsed by several other federal departments) in which job profiles are mapped across an industry so that learners can see how different careers interact and rely on one another. Each of seven career clusters (for example, sales and service, health, safety, and environmental management) includes two to seven career pathways from secondary school to higher education to the workplace. Partnerships of states, employers, schools, industry groups, and others jointly create cluster-specific curriculum guidelines, standards, assessments, etc. Many states and localities have adopted career clusters and customised them to local labour market needs (Froy and Giguere 2010). This type of coordinating initiative remains voluntary, however. A third mechanism for coordination and integration is the various national bodies that can provide strategic direction, such as the American Association of Community Colleges or the National Association of State Directors of Career and Technical Education. Finally, the proposed WIOA legislation requires state plans to show alignment of workforce development programmes with economic development and education initiatives.

With regard to education and training provision for skills development, the main institutions are community colleges, area vocational schools, and higher education institutions, both public and private. As place-based institutions, community colleges have a significant role in workforce training and developing the workforce at the local level (Katsinas, d’Amico, and Friedel 2012) and are the single largest provider of career and technical education. Unlike universities, their service delivery areas are assigned by regulation or statute. Unlike many European countries, relatively few upper-secondary (high school) students in the US follow a vocational programme or apprenticeship targeted at a particular profession or occupation. Rather, most career preparation takes place at the post-secondary level in one or two-year programmes, mainly at open-access community colleges.

Local advisory committees including business and industry representation may be established at community colleges for each CTE programme and are mandatory in some states. Their influence, however, is variable: some institutions have close cooperation with local businesses, while others have very weak links. Whether these links are weak or strong, local institutional autonomy allows for colleges to respond rapidly to employer and student demands for skill development. On the other hand, most occupational credentials emerge

‘bottom up’ from local initiatives (for example, post-secondary institutions, industry organisations) and lack any uniform standard, making it difficult for students or employers to assess their value (Kuczera and Field 2013).¹⁰

In sum, this overview points to several similarities with the education and training system institutions and policy developments in England.

- The WIBs, like LEPs, are a key vehicle for employers to take a central role around issues of skills and economic development at the local level
- Community colleges, like the further education sector, have a local focus and provide a variety of services: as portals of entry to higher education, as grantors of certificates and associate degrees in a variety of fields, and as providers of short- and long-term training courses. Both work in the space between secondary school and university to deliver career-oriented education and training
- Apprenticeships are not a significant feature of workforce development, especially for young people, in either country¹¹
- Public expenditure in the US is also on the decline. Many state budgets are constrained, which reduces funds for public community colleges and which may especially affect opportunities for part-time and low-income students

A major difference lies in the role of central government. States have the majority responsibility for education and its funding, and governance is in the hands of local boards (local education agencies) that operate within the legislative and administrative structures of states. States provide resources and create the legislative framework for how these resources will be used. When states choose to accept federal funding, actions associated with that

¹⁰ While there is no direct recognition or regulation of industry qualifications or credentials, state licensing boards indirectly perform this function by regulating any licensed professions to ensure a standard of competence.

¹¹ The Department of Labour administers the decentralised US apprenticeship programme, with employers given latitude in designing programmes in line with federal and state standards. It accounts for a small and declining share of employment in the US – fewer than 400,000 enrolled in registered apprenticeships in 2011 or about three apprentices per 1,000 individuals. Most are in the construction industry and over 70 per cent are 25 years of age or older (Carnevale, Jayasundera, and Hanson 2012). Apprentices in England numbered about 450,000 in 2010–11, about 15 per cent of all learners (at all ages) participating in government-funded vocational education and training (UKCES 2013). Nearly a quarter of new starts are over age 25 and many are already working. Quality is variable and major changes to the ‘brand’ have been called for (Richard 2012).

funding fall under federal law and accountability measures. Many states also separate governance of secondary and post-secondary education (Stone and Lewis 2010). While decentralisation affords flexibility it also spawns diversity and variability in education and training delivery. This can be seen in the wide variety of governance models across the states, to which the discussion now turns.

A variety of governance models

According to a review by the Education Commission of the States (McGuinness 2002), models of post-secondary education coordination and governance in the states fall into three major types: (1) governing board states; (2) coordinating board states; and (3) planning/regulatory/service agency states. In 2003, 21 states (plus the District of Columbia and Puerto Rico) followed a governing board model and varied as to whether the board has responsibility for consolidated systems or multi-campus systems. The former are composed of previously independently governed institutions later coordinated into one system, while the latter developed primarily through extensions of various branches. States may have a single board for universities and for community and technical colleges or separate boards. Separate boards are more common among the states in this group.

Coordinating board states (25 states in 2003) vary significantly in whether the board has formal authority or informal power and influence. Several have a state-level governing board in addition to a coordinating board. The tendency in this model is to separate universities and community colleges under separate governing boards; an overarching coordinating board at the top has responsibility for coordinating the whole system.

Only four states in 2003 adopted the planning/regulatory/service agency model, which has limited or no formal coordinated or governing authority, but carries out regulatory or service functions like student aid. In this model universities and community colleges have their own governing boards, either at state or local levels.

Between 2011 and 2013, five states transformed their systems (Smith and Fulton 2013). For example, California disbanded its post-secondary coordinating board entirely in 2011 and transferred data collection and strategic planning responsibilities to three state boards for community colleges, state universities and universities, respectively. Rhode Island abolished its state-level governing boards in 2013 to create a consolidated board of education that

oversees all education activities at the K-12 and post-secondary levels and appoints commissioners of elementary and secondary education and higher education.

This brief overview provides a snapshot of the governance arrangements in the US. The trend in the past 50 years has been toward the establishment of state-level coordinating or governing boards for post-secondary education, but the amount of control delegated to state boards varies from state to state (and within states over time). Given the variety and complexity of governing models the question is how they fit within an education and training system and connect with federal and state aims and programmes to enhance skill and workforce development.

Education and training governance

This section of the paper addresses the questions outlined above and attempts to highlight governance in relation to education and training providers (community colleges/further education), employer bodies and local workforce development bodies. It first provides a summary of practices in the US as a whole then focuses more closely on the two case study states.

Overview across states

Governance and management structure

As discussed in the previous section on models of governance, the US distinguishes between governance and coordination. Some structures are established to govern institutions, while others are established to coordinate the system or sectors. Institutional governance reflects an historical tradition of institutional autonomy and a high degree of freedom from external intervention and control. A basic role of governing boards is to oversee the balance between institutional autonomy and public accountability (McGuiness 2001a). States assign responsibility for governance to one or more boards that can be categorised in three ways: (1) consolidated: one board governs all two- and four-year institutions or one covers all four-year institutions with a separate arrangement for two-year institutions. A recent trend is to consolidate more or all authority across K-12 and post-secondary education, sometimes referred to as P-20 governance (Zinth 2011); (2) segmental: separate boards govern distinct

types of campuses, such as research universities, comprehensive colleges and universities, community colleges or technical institutes; and (3) campus-level: boards have autonomous authority over a single campus that is not part of a consolidated board or multi-campus system; states may have both consolidated and campus-level boards.

Coordinating boards have responsibility for key aspects of the state's role in post-secondary education. Some are responsible for statewide coordination of different policy tools or functions (for example, planning and policy leadership, programme review and approval), while others focus on a single sector such as community colleges. Coordinating boards do not govern institutions, in the sense that they do not appoint institutional chief executives or set faculty personnel policies (McGuinness 2001a).

These formal governing structures may be in addition to a wide array of other mechanisms, such as governors' and legislators' actions, informal networks and associations of institutions, administrative staffs, faculties and students (McGuinness 2001b). It is important to remember that governance is fluid, with different structures emerging over time due to such factors as fiscal crises or changes in state leadership (for example, in the governor's office), philosophical changes in states' role (for example, move to decentralisation), or lack of effectiveness of the current arrangements (existing board perceived as unable to solve problems) (McGuinness 2002). The changes noted above from 2011–13 help to illustrate the changing nature of system governance and management (Smith and Fulton 2013).

Allocation of decision authority

States typically allocate formal decision-making authority in a hierarchical structure, with three types of entities: statewide policy boards (coordinating or governing) and their executives; consolidated multi-campus governing boards and their executives; and institutional governing boards and campus-level decision-makers (McGuinness 2001b). State policies typically focus on specifying who gets to make which decisions, and under what conditions certain decisions require approval at higher levels in the hierarchy. 'Overall, the trend has been a move toward decentralisation, deregulation and privatisation, balanced by increased reliance on performance measures and incentive funding to ensure responsiveness of institutions to public purposes' (McGuinness 2002, 1).

Objectives, functions, and roles

As mentioned, the role of a governing board applies to an institution or set of institutions. Responsibilities may include appointing and setting compensation for system and institutional chief executives; strategic planning and allocation of resources among institutions in its purview; ensuring public accountability; and developing policy on a wide range of institutional concerns (for example, academic affairs, student affairs) without approval of external agencies or authorities.

Coordinating boards focus more on the state and system needs and priorities than on advocating for a particular institution or set of institutions. Coordinating boards also plan the system as a whole, often including both public and private institutions and, in some states, for-profits; may or may not review or approve proposals for new academic programmes or to require review; and may or may not review and make recommendations on budgets for the state system as a whole (McGuinness 2001a). The establishment of coordinating boards is more prevalent in times of fiscal crisis (McGuinness 2002).

Quality assurance

As might be expected in a system that is decentralised and includes both public and private provision, quality is highly uneven across the states. Although oversight varies across states, it typically provides some degree of consistency across public institutions. Private institutions, however, tend to be free of state-level checks and balances and therefore more variable in quality. However, quality assurance is embedded in the accreditation of programmes and institutions by industry and professional bodies and in accountability imposed by licensing and occupational certification requirements (USDE 2012, 19).

The US post-secondary system uses two levels of accreditation: institutional-level and programme-level. Both operate through a voluntary, peer-driven process. Institutions seek accreditation from independent accreditation bodies because accreditation is required to participate in some federal aid programmes, especially federal student financial aid, or to convey legitimacy to stakeholders. The federal government maintains a list of accreditation bodies, as does the non-governmental Council for Higher Education Accreditation. The

accreditation process focuses on such factors as the institution's financial standing, approved programmes of study, faculty qualifications, facilities and equipment, and recruitment and admissions policies.

Programme accreditation, especially for vocational courses of study, is sometimes linked to occupational certification and licensing requirements, which often feed into hiring requirements. The decision-making body for programme accreditation is usually composed of expert practitioners and instructors in the discipline, putting accreditation in the hands of occupations. The requirements for accreditation can vary considerably, and may be higher for those programmes that involve professional certification, such as medical professions (USDE 2012, 20; Bailey and Berg 2005). Only about a third of vocational students in community colleges are in certificate programmes. However, the link between specific educational credentials and specific jobs or occupations in the US is not strong. There are no legal certification requirements in a wide range of occupations (including banking and most areas in business, office work, retail trade, manufacturing, and many others). For the majority of occupations, workers are not required by law to have particular credentials to hold particular jobs (Bailey and Berg 2005).

Accreditation is significantly different in England, where quality assurance arrangements are more demanding and include a blend of institutional audits, direct inspections, and student destination surveys that allow graduates to report on perceived provision (Mussett and Field 2013). The English system is also more transparent in publishing institutional ratings by the Quality Assurance Agency, whereas US accreditation agencies 'maintain a shroud of secrecy over accreditation reports' (Daugherty et al. 2013, 26).

Accountability

As discussed, the WIA establishes performance measures (for example, employment, retention, earnings), but state governors negotiate state and local levels of performance with the federal government. States that receive WIA funding must prepare and submit annual reports on progress in achieving state and local area performance measures for all core programmes. The WIOA will extend performance reporting to the local- and training-provider levels. States are also required to conduct evaluation studies of workforce investment activities. States failing to reach performance targets can request technical

assistance. Those failing to reach targets for a second consecutive year may be subject to up to five per cent reduction in funding. States can also apply for and receive incentive grants for exceeding state-adjusted performance for each of three programmes: workforce investment, adult education, and vocational education.

Similarly, in exchange for Perkins funds states must provide data on accountability indicators annually, which for the post-secondary sector include technical skill attainment; credential, certificate or degree; student retention or transfer; student placement and non-traditional participation and completion. States have leeway in defining measures and data collection methodologies. This variability has hampered federal efforts to report nationally comparable data on the outcomes of career and technical education and to assess states' success in improving programme performance (USDE 2013; Stone and Lewis 2010). Perkins funding is distributed to states and localities by formula, and there is currently no mechanism for rewarding successful local programmes.¹²

Statewide data systems are an important tool for assessment and accountability in the post-secondary sector. Trends show a shift away from information for long-term planning toward measures of strategic outcomes and performance indicators. From the mid- to late-80s, most states established requirements that institutions assess student learning and use the information internally to improve their programmes. Over the years, 32 states have implemented some form of performance funding. The initial forms of performance funding awarded bonuses over and above regular state funding on the basis of intermediate- and long-term indicators. Newer funding formulas retain enrolment as one funding driver. However, there is little evidence that performance funding significantly increases rates of student retention and graduation, although it has led to intermediate institutional changes, such as changes in academic and student service policies, and programmes and practices intended to improve student outcomes (CCRC 2014). Research has identified a number of obstacles associated with performance funding programmes, including inappropriate performance measures; lack of funding for efforts to improve student outcomes; and the brief duration of such programmes. Troublesome unintended impacts include grade inflation and lowering of

¹² The Obama administration has set forth stronger accountability measures in its blueprint for the reauthorisation of the Perkins Act to allow states to award funds based on performance (USDE 2012b).

academic standards; access restrictions that affect less-advantaged students; and a diminishing faculty voice in academic governance (CCRC 2014).

Moreover, some question whether higher education is really held accountable at all, because institutions are not necessarily required to act on the information they gather to change what they do in order to become more successful (Carey 2007; Burke 2005). Rather, the system has long been one of self-accountability: the institutions want to be accountable only to themselves and to their peers. This self-evaluation is accomplished through accreditation processes, which institutions are motivated to seek both to show that their institution meets some set of quality requirements and to be eligible for federal student aid funds. States have attempted to build accountability systems that emphasise student learning outcomes, but performance-funding plans are not widespread. One recent review of states' accountability practices found that only five states linked accountability to funding, the strongest lever that state policymakers have to induce change (Carey and Aldeman 2008).

Employers and the labour market

Flexibility in the education and training system is thought to enable closer alignment of provision with the needs of the labour market. Vocational education and training demand may be assessed through a variety of means, including institutions' employer advisory boards, state or regional economic planning boards, or other state or regional labour offices, as well as by employment trends (USDE 2012, 19). Private institutions in particular tend to be demand driven, while public community colleges are more subject to supply-side constraints due to their reliance on public funding.

The role of employers in education and training is idiosyncratic and variable, but in general their roles are determined at the institution or programme level and usually involve serving in an advisory capacity and in providing internships (Bailey and Berg 2005). Employer advisory committees or boards have no authority under federal Perkins legislation, and there is not much data on their role and influence (Stone and Lewis 2010). Similarly, although employers must have majority membership on state and local boards defined by the WIA (and the WIOA), these boards have representatives from a wide range of stakeholders and essentially provide advice to elected officials. Perkins legislation does not require states

to work with economic and workforce development agencies to identify areas of focus for vocational education and training programmes (USDE 2012).

Employers financially support post-secondary vocational education and training by sponsoring contract (or customised)¹³ training, in which they contract with community colleges or other post-secondary institutions to provide training to their employees. Contract training may train employees directly or adopt a ‘train the trainers’ model. Contract training is an open market in which education institutions compete with each other and with private training providers. The WIA/WIOA establishes criteria for approving private providers where federal funds are being used for training. Employers, grants to institution-employer consortia, or business tax credits may also support this type of training (USDE 2012).

Overall, it can be said that the relationship between vocational education and training and the labour market is much less formal in the US than it is in many other countries. Systems linking continuous training to vocational education are informal, driven largely by employer interests in further training, and by individual desires to obtain additional skills. Vocational training qualifications/credentials do not correspond and shape work organisation within firms, and the link between specific education credentials and jobs is not strong (Bailey and Berg 2005).

Washington State

Among the 50 states, Washington ranks 13th in terms of both population and per capita personal income. Its educational attainment is slightly higher than the US average, with 24.5 per cent having at least some college education (compared to 21.2 per cent for the US as a whole). About 84 per cent of higher education students attend public institutions, 41 per cent of these at two-year colleges. The racial and ethnic make-up is predominately white (78.4 per cent, compared to 74.1 per cent nationally), with higher percentages of Asian (7.3 per cent) and American Indian (1.3 per cent) residents in comparison to the national average (4.8 and 0.8 per cent, respectively).¹⁴

¹³ When contract training is tailored for a specific company or client, it is referred to as customised training.

¹⁴ Chronicle of Higher Education. Available at: <http://chronicle.com/section/Almanac-of-Higher-Education/723/> (accessed 10 April 2014).

Overview of education and training institutions

Washington's secondary schools offer general education and technical education courses, both of which are intended to help prepare students for successful roles in families, careers, and communities. CTE programmes are organised into 16 career clusters – a group of jobs or industries that are related by skills or products. Pathways within each cluster correspond to a collection of courses and training opportunities to prepare for a career. The clusters were established at the national level by the States Career Clusters Initiative and are recognisable across the US on a voluntary basis. The clusters include agriculture, food, and natural resources; finance; education and training; marketing; manufacturing; hospitality and tourism; and others.¹⁵

Postsecondary education and training is provided by 102 public¹⁶ and private institutions and covers a wide range of programmes, from one-year certificates to two-year associate's degrees. Public institutions (34 community and technical colleges) enrol 80 per cent and private institutions (out of authorised private institutions, 250 provide certificates and 22 associate's degrees) enrol 20 per cent of career and technical education students. Thirty per cent of CTE students graduate from private institutions (a difference partly explained by the shorter programmes in the private sector). Apprenticeships are heavily concentrated in the construction sector and cater to approximately five per cent of CTE students (WTECB 2013a). Enrolment in apprenticeships has declined by 36 per cent in the recent economic downturn.

The university sector comprises six public universities and 10 other independent, non-profit higher education institutions.

Governance structure and decision-making authority

The focus of Washington's workforce development system is on programmes and services that prepare people for employment and consists of 17 programmes defined by state statute and executive order. These programmes emphasise preparing individuals for jobs that do not

¹⁵ Available at: <http://www.k12.wa.us/careerteched/Clusters/default.aspx> (accessed 6 September 2013).

¹⁶ In the US a 'public' institution is a state institution; a 'private' institution is independent, and may be not-for-profit or for-profit.

require a baccalaureate (bachelor's) degree, which amounts to about 75 per cent of jobs in Washington.

The state of Washington's governance structure follows the 'governing board' model for higher education (McGuinness 2003), mainly characterised by independent institution-led governing boards for its six public universities. Ten independent higher education institutions in Washington have separate boards, but are associated as the Independent Colleges of Washington. The education and training system also features a state-level coordinating board, the Workforce Training and Education Coordinating Board (Workforce Board, WTECB), created in 1991. A separate State Board for Community and Technical Colleges (SBCTC) coordinates locally governed community colleges. The Washington Student Achievement Council was established as a cabinet-level state agency in July 2012 to provide strategic planning, oversight, and advocacy to support increased student success and higher levels of educational attainment for all Washingtonians.¹⁷ Its nine-member council consists of five citizens and one representative from each of the four educational sectors. It replaced the Washington Higher Education Coordinating Board, which had statutory coordinating responsibilities for higher education institutions. The WTECB's members are appointed by the governor. Business and labour represent six of nine voting members, and non-voting members also participate.

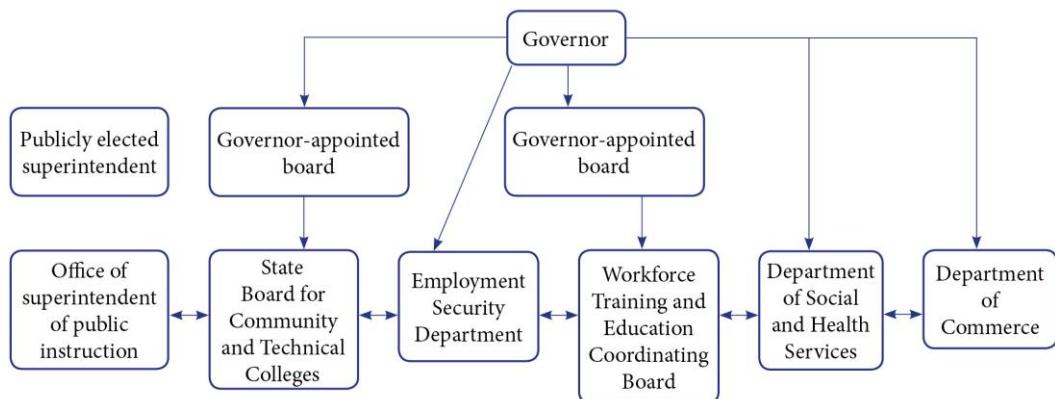
The SBCTC has a nine-member, governor-appointed board responsible for administering the Community and Technical College Act and providing leadership and coordination for Washington's system of 34 public community and technical colleges.¹⁸ By law at least one member of the board must be from business and one from labour.

Five other state-level agencies (including the SBCTC, Office of Superintendent of Public Instruction, Employment Security Department, Department of Health and Social Services, and Department of Commerce) are involved in the workforce development system, and report to the governor either directly, through governor-appointed boards (SBCTC, WTECB) or an elected official (see Figure 1). But it is the WTECB's responsibility to review and make recommendations to the governor on operating plans of these agencies to ensure consistency with the state's strategic comprehensive plan.

¹⁷ Available at: <http://www.wsac.wa.gov/> (accessed 10 March 2014).

¹⁸ Available at: http://www.sbctc.ctc.edu/general/a_index.aspx (accessed 6 September 2013).

Figure 1: Overview of Washington's workforce system



Objectives, functions, and roles

The WTECB is the state agency responsible for planning and evaluation across the workforce development system. It serves as the state agency eligible for Perkins and as the state workforce investment board under the WIA. Thus, it covers career and technical education programmes from secondary through post-secondary and workforce development. It is among the first states to connect workforce development through a single state plan and to establish a body responsible for coordination (Kuczera and Field 2013). It is also the state's performance accountability agent and licenses and regulates private career schools.

The WTECB defines the state objectives and strategies to reach them, which it publishes in the 'High Skills, High Wages' report.¹⁹ Beyond its coordinating role, the WTECB is responsible for developing and managing a performance management system for workforce development; assuring non-duplication among programmes; reviewing local area strategic plans developed by the 12 workforce development councils; making recommendation to the governor on allocation of funds; preparing annual WIA reports to the US Department of Labour; and determining how to award any incentive funds rewarded under the WIA.

¹⁹ Available at: <http://www.wtb.wa.gov/Documents/HSHW2012StrategicPlan.pdf> (accessed 3 March 2014).

Quality assurance

Like other states, quality assurance in Washington is embedded in the accreditation of programmes and institutions by industry and professional bodies (in some cases) and in the accountability imposed by occupational certification and licensing requirements. Private and career schools must be licensed by either the WTECB or the Student Achievement Council to provide training supported by public funds.

As with other states, Washington's CTE programmes typically have advisory committees to provide subject-matter expertise in the review and evaluation of programme curricula and equipment and overall effectiveness. The advisory committees are usually long-term in nature and help determine professional and technical programme goals and create a bridge between local industry and CTE programmes.

The state has developed skills standards for the CTE workforce to assist community and technical colleges with promoting the right skills among teachers. 'Industry partners contributed to the development of these standards', which helps ensure that teacher knowledge is aligned with recent industry requirements (Kuczera and Field 2013, 144). This appears to be a type of technical assistance, rather than a regulation (that is, no demands that teachers meet standards).

Washington does not have a statewide skills standards system. Rather, individual institutions decide whether to include credentialing in professional technical programmes. Officials see this as a weakness of the education and training system, and there are moves to create a statewide credentialing system, with a focus on middle-skill jobs, that will provide skills portability and support a pathway from secondary school to baccalaureate degree and beyond. Transition of credits now depends on articulation agreements, which are often formulated course by course between departments and institutions. This means that students can lose credits even when transferring within the same field (Kuczera and Simon 2013). The state is also investigating the adoption of national skill standards, such as the National Advanced Manufacturing-Endorsed Certification System, to determine if they will be beneficial.

The state's integrated workforce plan (for 2012–17) calls for an increase in the use of industry-based skill standards, assessments and credentials. It aims to bring the education

system together with industry to identify standards and assessments, both general and those specific to particular industries. Since 2000, the state has supported industry skills panels, public-private partnerships of business, labour and education to improve skills, especially in response to industry-specific skills gaps identified by WTECB analyses (discussed further below). These help ensure quality and alignment of the labour market with skill development efforts.

Accountability

Washington initially implemented a performance funding system in 1997 for all of its higher education institutions, but discontinued the programme after two years due to lack of public support (Miao 2012). In 2007 the SBCTC made a second attempt at performance funding with the Student Achievement Initiative (SAI) for all community and technical colleges. The SAI was developed by a task force of higher education and institutional leaders and includes certificate and associate's degrees (both transfer to four-year and CTE), apprenticeship retraining for workers and a programme for adults without a high school diploma. Colleges are evaluated relative to progress made on their own prior performance according to accumulation of achievement points. They are rewarded with additional funds if there is a positive change in specific outcomes, such as the number of students that move from remedial to credit courses, complete specific credits, and successfully complete a degree. Unlike previous performance funding models, it rewards colleges for students' intermediate achievements along the pathway toward college completion as well as for completion itself. 'There are no targets, colleges compete with themselves rather than each other' (SBCTC 2013). In 2009 colleges received \$1.8 million for performance gains (Jenkins and Shulock 2013). The SAI does not affect the regular distributional formula of state funds.

The SAI tracks student progress over time and encourages institutions to measure the impact of tools designed to improve student progression. The focus on progression and completion has increased attention to basic skills and remedial education and has reportedly led to stronger investment in student services (Jenkins et al. 2009). In this sense it serves as a driver of the system.

Evaluations of the SAI show that the number of students in community and technical colleges reaching crucial progression points (momentum points) has been growing since its

introduction (thus suggesting it serves as driver for performance improvement), with more students performing better on basic skills and being college-ready. More students have been enrolled, yet achievement rates grew faster than enrolment, implying that student achievement explains an important part of improvements. The SAI does not appear to have penalised institutions that serve more at-risk, low-income students. Achievement growth halted in 2011, perhaps due to funding cuts in post-secondary education (Kuczera and Field 2013, 142).

Employers and the labour force

The state plan envisions employers as a central component of the workforce system and strives to align the system with employers' needs. But employers must also play an active part in the system's design, delivery and evaluation of training programmes. To this end the plan specifies several roles for employers and also some incentives (see below), and the WTECB evaluates labour market outcomes.

As mentioned above, business and labour have majority voting seats on the WTECB and also participate in other bodies that contribute to workforce development, such as the SBCTC, and on programmatic advisory committees at the institutional level. In the latter cases, relationships would occur with individual institutions, as each has independent governance. According to the OECD's independent review, employer and labour representatives 'steer and shape policies related to career and technical education' and go 'far beyond just advising' (Kuczera and Field 2013, 143).

The WTECB administers a customised training programme whereby Washington-based businesses can contract with eligible training institutions to provide dedicated training to employees. Eligible institutions include Washington's 34 community and technical colleges and any private career school or college licensed by the WTECB or the Higher Education Coordinating Board. The state pays training institutions directly, and employers repay the funds interest-free over an 18-month period and claim tax credits equal to 50 per cent of the amount they repay. This reduces the cost of the training to new and expanding firms and is considered critical to attracting and retaining businesses. The state expects participating

employers to add new jobs in Washington and gathers data on job growth.²⁰ However, according to the WTECB's biannual employer survey, only 2.5 per cent of employers in 2012 had an arrangement with a public community college to provide education and training services to their employees (WTECB 2013b). Some 93 per cent of employers were satisfied with that training.

The Workforce Board evaluates the labour market outcomes of each of the major post-secondary CTE programmes, including those at community and technical colleges, apprenticeship, and CTE programmes provided by private institutions. Since 1996, the WTECB has collected and provided on skill attainment (completion rates), employment rates, earnings, customer satisfaction, net impacts on employment and earnings, and benefit/cost returns on investment.²¹

According to the OECD (Kuczera and Field 2013, 143), the net impact analysis 'rigorously measures the impact of CTE by comparing the labour market outcomes of CTE participants with the performance of similar individuals who did not participate in post-secondary CTE'. Those who completed CTE programmes fared better than a control group in both short- (nine months) and long-term (three years since exit) in terms of employment likelihood and wages (Kuczera and Field 2013, 143). Students receiving certificates at private institutions showed an increase in wages compared to the control group, but the increase was below that for public institution graduates. Privately earned CTE certificates had no effect on short-term employment compared to the control group.

The WTECB regularly carries out a cost benefit analysis.²² Analysis has shown that over the lifetime of an individual participation in public CTE programmes generates \$132,000 of net benefits and \$18,000 of public returns (students leaving programme in 2005–06; net gains compared to earnings of similar individuals who did not receive the training) (Kuczera and

²⁰ Available at: http://wtb.wa.gov/CustomizedTrainingProgram_dir.asp (accessed 8 June 2014).

²¹ The US Department of Labour asked the WTECB to lead the states in developing a new generation performance management system, which led to the Integrated Performance Information (IPI) measures. The IPI measures later became the basis of similar performance measures endorsed by the National Governors Association, and these were considered in the WIA reauthorisation process. The proposed WIOA has six core measures including rates of entry into unsubsidised employment; retention in employment; earnings six months after entry; and attainment of a recognised credential.

²² Longitudinal data on a number of indicators can be found at <http://wtb.wa.gov/CTC2014Dashboard.asp> (accessed 20 June 2014).

Field 2013, 143 and Table A.1). Net student benefits for private school participation were much lower at \$3,000.

Information on labour market performance feeds into career services for students. Individuals can access labour market information by occupation and costs and outcomes of programmes on the Career Bridge website.

Texas

Texas is the second most populous state in the US and ranks 26th in per capita income. The poverty rate is 18.5 per cent, above the national average (15.9 per cent). It has a high Hispanic population at 38.1 per cent, more than twice the national average (16.7 per cent). Hispanic residents make up two-thirds of population growth over the last decade. About 23 per cent of Texans have at least some college education, close to the national average (21.2 per cent). About 85 per cent of higher education students attend public institutions; 48 per cent of these at two-year colleges.²³ The Texas economy was less impacted by the recent recession in comparison to the rest of the US and recovered more quickly. By 2011 the state reached a new high in employment.

Overview of education and training institutions

Texas had over 1,300 public high schools in 2012. It has adopted the National 16 Careers Clusters Model (discussed earlier) as the basis for reforming the high school curriculum and to help improve transition between secondary and post-secondary education.

Texas has 147 higher education institutions, including 105 public universities and colleges. Public institutions include 38 universities, 10 health-related institutions, seven technical and state colleges, and 50 community college districts. Private institutions include 38 independent universities, one junior college, two chiropractic colleges, and one medical school.²⁴

²³ Chronicle of Higher Education. Available at: <http://chronicle.com/section/Almanac-of-Higher-Education/723/> (accessed 10 April 2014).

²⁴ THECB 'Texas Higher Education Data'. Available at: <http://www.txhigeredata.org/Interactive/Institutions.cfm> (accessed 17 April 2014).

In addition, the Texas Workforce Commission (TWC) licenses proprietary and non-profit career and technical schools, many with multiple campuses, which offer career and technology training in the 28 workforce development areas. These are regulated by law. There are also many online higher education opportunities available.

Governance structure and decision-making authority

The Texas Higher Education Coordinating Board (THECB), the Texas Workforce Investment Council (TWIC), and the TWC are the main agencies with responsibilities for the post-secondary education and training system. Eight state agencies in total comprise the education and training system, along with the Texas Association of Workforce Boards, 28 local workforce development boards, community and technical colleges, local adult education providers, and independent school districts. Texas has one of the more centralised higher education governance structures of high-population states.

The THECB, the highest authority in the state in matters of higher education, reports to the governor. Its mission is ‘to work with the legislature, governor, governing boards, higher education institutions and other entities to help Texas meet the goals of the state’s higher education plan, closing the gaps by 2015, and thereby provide the people of Texas the widest access to higher education of the highest quality in the most efficient manner’.²⁵ It is established by law in the Higher Education Coordinating Act of 1965.

The THECB is comprised of nine unpaid members appointed by the governor and confirmed by the Texas legislature for six-year terms. Members are to act as representatives of the general public, and the law stipulates restrictions on outside activities.²⁶ All members must attend mandatory training that addresses roles and duties of governing board members, budget and financing, and other topics. Students are represented by an appointed, non-voting representative (unpaid except for expenses). The THECB is supported by a staff of 100–200, led by a commissioner of higher education who is appointed by the board.

²⁵ Available at: <http://www.thecb.state.tx.us/index.cfm?objectid=590DB776-049E-7F1F-BA50A97E6E39169D> (accessed 5 June 2014).

²⁶ For example, Coordinating Board members may not be employed in education or serve on a community college board of trustees.

The THECB chairman organises advisory committees to gain input from a wide variety of stakeholders. For example, the advisory committee on higher education cost efficiencies comprises higher education and business leaders to review opportunities for achieving cost efficiencies statewide, through such measures as restructuring financial aid programmes or programme consolidation. The advisory committee on nursing education helps develop strategies for implementing recommendations identified in the THECB's reports on nursing education.

Individual institutions have their own governing bodies and are therefore independent in terms of academic freedom and the management and operations of internal affairs. Texas has an institutional governing structure: there are about 60 separate governing boards: six boards for the public four-year system, 50 locally elected boards for the public community college districts, one board overseeing the eight technical colleges, and several single-institution boards. A coordinating board is needed to provide a system-wide perspective.

The TWIC assists the governor and state legislature with statutorily mandated responsibilities for workforce development, strategic planning, evaluation, review, and reporting. Appointed by the governor, the Council serves as the State Workforce Investment Board under the WIA and works closely with system partners, including the THECB, to facilitate collaboration and coordination among the eight agencies in the workforce system. It is mandated by state law to develop the Texas workforce strategic plan and to monitor the system. It reports annually to the governor and legislature on the degree to which the system is effective in meeting state and local workforce goals and objectives. Its most recent plan is entitled 'Advancing Texas: Strategic Plan for the Texas Workforce System (FY2010–FY2015)'. The TWC distributes federal WIA funds through formula allocation to the state's network of 28 local workforce boards and their offices. It is the state agency charged with overseeing and providing workforce development services and is most directly involved with employers. The legislation establishing the TWC was enacted in 1993, predating the WIA. The WIA-related activities are built upon the earlier organisational structure, which included local workforce boards, strategic planning, and performance standards.

The Texas legislature is the final power with regard to decision-making authority. It can overrule decisions made by the THECB or other entities involved in the education and training system. Over time the legislature has become more explicit about accountability. The

legislature determines funding for higher education (the THECB makes recommendations on funding), and the governor has no veto power or control over the budget.

Objectives, functions, and roles

Chapter 61 of the Texas education code establishes the role of the THECB (Higher Education Coordinating Act of 1965) and changes in that role are made by the state legislature. The THECB has responsibility for the full range of higher education institutions, including four-year universities and community colleges, and technical and vocational education providers. According to Chapter 61 its roles include creating a five-year master plan that takes resources of public and private institutions into account. It monitors implementation of the plan and reports to the legislature every odd-numbered year on the higher education system's progress toward reaching goals. It reviews the roles and missions of each higher education entity, prescribes maximum enrolments, and approves all degree programmes to make sure they meet present and future needs of the state and counties in which they are located (reviewed at least every four years). In the past the THECB had authority to eliminate degree and certificate programmes – for example, if enrolment or achievement was too low – but this is no longer the case. It still has authority to approve programmes, but only institutional boards are empowered to close them. This has resulted in greater scrutiny of the new programme approval process.

The THECB authorises the creation of public community college districts and adopts standards for operating public community and technical colleges. Another role is to encourage development of new certificate programmes in technical and vocational education and training in Texas public institutions and community colleges as the needs of industry and technology may demand. It identifies 'as specifically as practicable' the programmes or fields of study for which an area has or is projected to have an unmet need. Various factors have been identified for assessing unmet need. Recently, the Texas legislature approved Senate Bill 414, mandating a study to look at the possibility of further expanding community college baccalaureate degrees in Texas. In response to that mandate the THECB is currently sponsoring a study of unmet workforce needs in nursing and four applied science fields: computer and information technology, management of fire sciences, management of production/operations technicians, and health information technology. The study will provide

evidence to support the THECB and legislators in making policy decisions about whether to expand community college baccalaureate programmes in these and other areas (Daugherty et al. 2014).

The THECB has oversight of financial aid programmes, monitors construction projects at post-secondary institutions, and makes recommendations to the governor and legislature about funding levels. It also prepares legislation related to the education and training system.

The TWIC's remit includes common responsibilities of state boards under the WIA, including identifying workforce needs; reviewing services and use of funds; planning; and developing standards and measures to evaluate workforce programmes. It also is charged with taking a systems perspective and does this by focusing on the impact of one programme on another, transitions between various parts of the system, and how outcomes of one programme affect the entire system. The strategic plan mentioned above is the primary vehicle for implementing a systems perspective.

Quality assurance

As with other US states, institution-level quality assurance is carried out by independent accrediting bodies. It is a voluntary process in which post-secondary schools and colleges apply to a non-governmental body to review their school programmes against defined standards. Once accredited, programmes must maintain minimum standards to remain accredited. The THECB requires that any school offering any degree programme must be accredited by a body that it recognises. The board staff helps institutions get requirements in place (for example, independent oversight board, standards for library, faculty). On the training side, accreditation is not required for the TWC to license a career school or college to operate, but schools must be accredited by an agency recognised by the federal government to qualify for federal grant and loan programmes.

At the programme level, CTE curricula at community colleges are developed using state, federal, and business/industry standards following Workforce Education Manual guidelines. Courses are reviewed on a three-year cycle. Assessment methods are determined locally by programme personnel in the colleges; programmes leading to certification or licensing are assessed by appropriate industry bodies or agencies. All programmes have advisory committees that include employers and provide input regarding the skills and knowledge

needed by the local workforce. But the involvement of employers is highly variable (Kis 2011).

Texas is one state that has explored the use of testing to measure student learning. It requires each of its state universities to administer the Collegiate Learning Assessment to a sample of students in their freshman and junior years. This assessment measures higher-order thinking skills and scores can be used for more direct comparison across institutions (Carey 2007).

The Texas Skills Standards Board (TSSB) was established by the Texas legislature in 1995 to advise the governor and legislature. Its governor-appointed, 11-member board is charged with developing a statewide system of skill standards for sub-baccalaureate occupations and has recognised industry-defined and industry-endorsed skill standards in a variety of occupational areas. As a quality assurance agency, TSSB establishes criteria for validating nationally established standards; developing standards in industries and occupations where no standards exist; and reviewing and recognising other states' and nations' standards. It sets requirements that industry groups must consider if they seek TSSB recognition for their skill standards. Its central clearinghouse role helps avoid duplication of effort in developing standards.

The skill standards may be integrated into community and technical college curricula and thus are intended to support workforce needs of business and industry. The TSSB also recognises career and technical college programmes integrated with the skill standards and promotes them in outreach activities to employers and industry groups. It provides resources to help faculty integrate skill standards into the curriculum. All of the TSSB-recognised skill standards and programmes and integration guidelines (TSSB 2013) are available on its website.²⁷

The TWIC creates competency and performance standards for each workforce education programme and these standards must be used in review, approval, or disapproval of any CTE programme financed by state and federal funds.

²⁷ Available at: <http://www.tssb.org> (accessed 20 May 2014).

Accountability

The THECB provides performance data by institution, including information on application and admission rates, financial aid awarded, time to degree, and baccalaureate completion rates during the prior fiscal year. It conducts comparative analyses of institutional reports and performance data, and reports to the legislature on actions taken by universities and community colleges to meet the state's goals.

The state employs an outcomes-based funding model for community and technical colleges. CTC institutions are funded by the state on the basis of enrolments. The outcomes-based model allocates 10 per cent of base funding relative to educational milestones and 90 per cent by enrolment. These milestones include completion of developmental education (remedial courses) in mathematics and/or English for those students assigned; completion of first-year college-level mathematics or English; completion of 15 or 31 semester credit hours; earning a degree or certificate; and transfer to a four-year university. The THECB has also recommended performance-based funding for universities, which would reserve 10 per cent of instruction and operation funds allocated by undergraduate weighted semester credit hours and instead distribute them using a three-year rolling average of institutional performance on several metrics: bachelor's degrees awarded; time to degree; bachelor's degrees awarded in critical fields; and bachelor's degrees awarded to at-risk students. However, according to an expert informant, this proposal has met with opposition by universities and is still under debate. In both cases the performance metrics are drawn from the THECB's 'Closing the Gaps' report, which identifies goals for the state to accomplish by 2015.

The THECB also publishes data on performance metrics related to state goals.²⁸ The Compare College TX website has information related to costs, graduation, and transfer rates; students (for example, undergraduate acceptance rates, SAT scores, demographics); classes (for example, student-faculty ratio, per cent full-time, and tenured faculty); and first-year earnings of graduates. Users can select institutions by different characteristics (type, name, cost, size) and browse the information provided as well as compare institutions.

The TWIC prepares a report each year on the implementation of the strategic plan, which includes performance data for 19 workforce programmes and five secondary and post-

²⁸ Available at: <http://www.txhigereddata.org/Interactive/accountability/default.cfm> (accessed 1 April 2014).

secondary programmes administered by the partner agencies. This document lists accomplishments only.

Employers and the labour force

As discussed, the Texas workforce system is comprised of a number of programmes and agencies, coordinated by the TWIC. Numerous strategies aim to engage employers and align with the labour force. The TWC has designed performance measures to ensure that local boards are meeting needs of employers. The Office of Employer Initiatives is tasked with providing leadership and direction to engage employers, business organisations and the economic development community to support development of a ‘customer-focused market-driven workforce system’. The office develops cluster-based strategies and industry partnerships and implements business-led programmes for recruitment and growth.

The TWC administers the Skills Development Fund,²⁹ an example of an inducement strategy to incentivise employers to train workers for high-priority occupations in a way that benefits both the local economy and public community colleges. The Fund assists businesses and trade unions to finance the development and implementation of customised training programmes, in partnership with a public community or technical college, The Texas Engineering Extension Service or private, non-profit community-based organisations in partnership with one of these institutions. The business entity must be involved in the programme’s planning and design, and works with the local workforce board, which has knowledge of business and workforce needs in the community. Employees who complete the training programme must be paid wages equal to or greater than the prevailing wage for the occupation in the local labour market. Priority is given to small and medium-sized enterprises and to proposals that demonstrate that 40 per cent of training is for new job incumbents. The learner outcome tracking system tracks performance against awards. Although costs per trainee are not strictly capped, the target ceiling is set at \$1,420. This means that some popular, expensive, commercial training packages, such as SixSigma and Lean Manufacturing (with per trainee costs in the \$3,000 to \$13,000 range), are generally not eligible unless the business incurs the additional costs. Since one of the purposes of the

²⁹ Available at: <http://www.twc.state.tx.us/svcs/funds/skills-development-fund-employers.html> (accessed 12 June 2014).

programme is to build capacity in the colleges, courses that require third-party vendors to provide training are not approved. For example, training to use electronic medical records software that requires third-party trainers identified by the software manufacturer would not be approved, even if there is high demand for individuals with these skills.

As noted earlier, the TSSB has responsibility for developing a statewide system of skill standards. By law, the standards must be defined and recognised by industry.

Summary

This chapter has reviewed features of the education and training system across the US as a whole and for two states: Washington and Texas. Table 1 summarises key features of these systems.

Table 1: Selected features of education and training systems in the US

	US	Washington	Texas
Governance	Federal system; Variety of education and training system governance models across states	Governing board model; WTECB acts as state board for both WIA and Perkins	Coordinating board model; THECB acts as state board for Perkins (post-secondary); TWIC acts as state board for WIA
Authority	Federal law for US-wide programmes; WIA, Perkins legislation	State statutes RCW 28C.18.08; RCW 28C.18.080	THECB: Texas Education Code, Title 3, Section 61 TWIC: Texas Government Code, Chapter 2308
Significant roles	Legislation to influence states to plan, raise quality, provide certain services, serve special populations, etc.	<ul style="list-style-type: none"> • Strategic planning • Evaluation • Licenses and regulates private providers • Performance accountability 	<ul style="list-style-type: none"> • Strategic planning • Monitors plan implementation • Approves degree programmes; sets enrolment limits • Identify unmet needs in labour market and encourage programmes in these areas • Licenses and regulates private providers

Quality assurance	<ul style="list-style-type: none"> • Non-governmental bodies for institutions; employers/professional bodies for programmes • No national curriculum or standards (voluntary adoption) 	<ul style="list-style-type: none"> • Non-governmental bodies for institutions; employers/professional bodies for programmes • Supporting industry skill panels to develop standards 	<ul style="list-style-type: none"> • Non-governmental bodies for institutions; employers/professional bodies for programmes • Statewide skill standards system • State CTE programme standards
Accountability	<ul style="list-style-type: none"> • Core performance measures negotiated with states for WIA, Perkins • WIA has rewards and sanctions 	<ul style="list-style-type: none"> • Gathers and publishes data on core performance measures • Performance funding for community colleges (SAI) 	<ul style="list-style-type: none"> • State plan sets targets for performance; gathers and publishes performance data • Performance funding for community colleges
Labour force alignment	WIA mandates state and local workforce boards (WIBs)	12 Workforce development boards; WTECB evaluates CTE programme outcomes, conducts impact analyses, reviews board's plans, determines awarding of incentive funds	28 Local workforce development boards
Employers	Membership on state and local WIBs mandated by law	State supports industry skill panels	<ul style="list-style-type: none"> • Private sector employers have majority on local workforce boards • Voluntary engagement in vocational education and training programmes at local level

THEMES AND LESSONS

This final section draws themes from the review of US systems and draws comparisons with the English education and training system. It also addresses the final study question: What are the relevant lessons for evolving education and training systems policy in England?

Governance and authority

There are a number of striking differences between England and the US cases in terms of governance and authority. Although the two state examples have different governing models, the actions of the state institutions and agencies are similar with regard to implementing federal policy. The structure imposed by federal law steers states in particular policy directions in the national interest, yet allows for flexibility to meet needs at the local level (WIBs and local education agencies). A legislative framework at the state-level gives authority to particular agencies in performing roles determined by the state legislature, and in keeping with federal law where federal funds are in play. A main difference between the two states is that Washington has the same agency as authority for both the WIA and Perkins IV, while Texas separates this authority between two agencies (the TWIC and THECB, respectively). Apart from federal law, the education and training systems operate under a legislative framework to implement state and local education and training programmes and policies. A common characteristic of states under the WIA is that WIBs are attached to economic regions that are determined at the state level.

In contrast, LEPs in England are not defined in legislation and do not have a statutory role. They receive only minimal government funding. This is a step down from the prior arrangements with the regional development agencies, which had statutory authority and considerable levels of funding. While the government will take over some of the regional development agencies' responsibilities, LEPs are tasked with encouraging employers and other education and training system stakeholders to work in a strategic direction (discussed further below). The clear lesson here is that without statutory authority, LEPs are in a weak position. They have permission to act but no authority. This situation lends credence to concerns that they are destined to be 'toothless tigers' and 'talking shops' (Pugalis et al. 2012), despite claims that they have 'direct powers' (UKCES 2013b). A recent evaluation of further education reforms thus far recommends that LEPs' role be strengthened (BIS, 2013). Policymakers might reconsider LEP status and the implications of their weak position for meeting their intended policy goals.

Strategic planning

The organisation of the US system and state examples is geared to strategic planning across the system. This occurs first from the federal to state and lower levels, whereby states accepting WIA or Perkins IV funding are mandated to develop strategic plans that demonstrate how federal funds will be used, and states in turn ask the same of local authorises and entities. Since 2012, states have been allowed to submit a single, five-year ‘unified plan’ that covers up to 13 federal programmes administered by five federal agencies. Washington State has been working toward submitting a unified plan.

This planning structure is evident in states apart from any federal mandate. For example, when the WIA was enacted Texas already had a coordinating board (the THECB) and a system of regional workforce boards under a central state agency (the TWIC).

This approach is strikingly different to England, where UKCES, an executive, non-governmental body with a remit to look strategically across England and the other three UK nations (Wales, Scotland, and Northern Ireland), operates in an advisory capacity to the government department. While LEPs are intended to generate demand for strategic priorities, they are somewhat hampered by a funding system based on learner demand and on employers’ willingness to pay (Payne and Keep 2011). LEPs receive relatively limited direct funding from the government, in contrast to the regional development agencies that preceded them, but bid competitively for funds from the Regional Growth Fund. LEPs may also be insufficiently embedded within government plans to be able to respond to economic problems (Pugalis et al. 2012). Likewise, with the Employer Ownership of Skills pilots employers are intended to ‘design and deliver skills solutions in their industry and locality, aligned to a broader industrial strategy’ (UKCES 2013, 12).³⁰ In 2013 the government proposed £1.6 billion over 10 years to 11 ‘strategic partnerships’ in selected sectors (for example, aerospace,

³⁰ Examples of projects funded include Everton Football Club, to establish a traineeship scheme to target the lack of employment in the local area and the perception that young people lack work-ready skills; a consortium of employers in the energy sector in Yorkshire and Humber to offer a new form of authentic, site-based training; a project to establish apprenticeships for music instrument retail; and a collaboration with Siemens and the SSC SEMPTA for a skills programme to enhance pre-employment and apprenticeship training especially in their supply chain. For further examples see: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/306675/EOP_Round_1_projects.pdf (accessed 1 July 2014).

oil and gas, automotive, information economy),³¹ but these are not specifically linked to other policies (Smith 2013). Thus, it is difficult to see how a national strategy is served by this somewhat piecemeal approach: can these localised efforts covering a variety of industries and target groups add up to a national strategy?

Difficulties engaging employers

A common feature of England and the US is that employer engagement with the education and training system is on a voluntary basis, unlike some forms of social partnership that operate in many European nations. At most, employers and sometimes labour organisations are required to have a place at the table. This makes it more difficult to engage employers, especially small and medium enterprises, although both countries have tried different strategies with mixed success. The Employer Ownership of Skills pilot, launched in 2012, aims to support a ‘demand-driven’ system that is sensitive to employers’ needs, and does this with an inducement strategy. Employer-led consortia compete for funds, and there is an expectation that employers will also commit their own funds to the projects. As BIS policy states, ‘we will not tell employers what to do but instead support them in implementing proposals they make to raise their game on skills’ (BIS 2012, 13). Although it is too soon to tell whether this pilot programme has been successful, it has so far been operating at a small scale.³² Thirty-seven projects were funded during the first round and 11 in round two as of 2013.

Inducement-type policy instruments are evident in federal legislation in the US (the WIA and Perkins) and in states as well. Washington has incentivised employers with a 50 per cent rebate for the cost of training, but estimate that only 2.5 per cent of employers take it up. In 2012, Texas’s Skills Development Fund awarded 50 grants and served only 111 businesses. These results suggest limited take-up by employers, and therefore do not afford any particular lessons for England.

³¹ Available at: <https://www.gov.uk/government/policies/using-industrial-strategy-to-help-the-uk-economy-and-business-compete-and-grow/supporting-pages/developing-strategic-partnerships-with-industry> (accessed 6 July 2014).

³² The BIS has commissioned an independent evaluation of the first round of Employer Ownership pilot projects, which is still in progress, and no findings have been reported to date. The Employer Ownership pilot programme is jointly funded by the BIS and the Department for Education with £340 million to 2015–16.

Another area where the education and training system aims to engage employers is partnering with education providers, especially to provide work-related learning in companies. A work-based component has been identified as a key feature of high-quality post-secondary education, and local partnerships are needed between employers and further education or community colleges to bring this about. Another important form of engagement is between vocational teachers and employers, as the former need ways to keep their knowledge up-to-date. Similarly, it is recommended that those with industry experience enter teaching full- or part-time (Musset and Field 2013). Employer engagement with education provision is insufficient and inconsistent in England (Musset and Field 2013; Hughes and Smeaton n.d.) and very weakly integrated into the CTE system in the US (Kuczera and Field 2013; Hoffman 2011).

The US has made some attempts to formalise the relationship between education and training providers, employers and the labour market. The School to Work Opportunities Act provided funding for employer engagement, albeit on a voluntary basis. However, political opposition meant that the Act was not re-authorised; it was seen as too much government interference with individual career choices and employers' hiring decisions. The Act expired at the turn of the century and was not re-authorised. This illustrates the lack of consensus that establishing more formal links between education and training provision, employers and the labour market would in fact result in a significant improvement in the quality of the US workforce (Bailey and Berg 2005).

The overall picture is a familiar one: a voluntarist approach is a significant barrier to engaging employers in the education and training system. Even if employers do engage, it is not clear how representative they are in relation to all employers in the industry or sector. In both countries the rhetoric around employer engagement often outweighs the reality. Although employers in both countries are definitely engaged in ways that policymakers desire, their involvement is variable and unsystematic. Many are not involved or heard in shaping education and training system priorities.

Competition and collaboration

Although competition is a feature of education and training policy in both England and the US, it appears as a stronger theme in England. Competition is the operative approach for

implementing a number of policies, including Employer Ownership pilots and LEP and SSC funding. The aim is to move from a ‘grant funding’ model for SSCs to a ‘competitive investment’ approach available to a wider number of organisations, such as LEPs. Further education colleges are expected to compete with each other and other providers, as this ‘drives up quality, customer focus and responsiveness, which provides benefits to employers and learners’ (BIS 2013, 77).

Further education colleges are in a strange relationship with higher education institutions in England as both collaborators and competitors. In a move to produce lower-cost degrees, in 2012 the Higher Education Funding Council earmarked 20,000 places to be funded at £7,500 or less per year (in contrast to university fees set at £9,000 per year), a move taken as a positive development for FEs, many of which already provide post-compulsory higher education. The arguments (pro and con) for degree provision through further education are similar to those made in the US with respect to community colleges offering baccalaureate degrees (for example, see Norton 2012; Daugherty et al. 2014).

A striking difference between England and the US is that further education colleges must partner with universities to validate the degrees conferred.³³ Thus, a student completing a degree at an further education institution is counted as a graduate of the collaborating university. At the same time further education is competing with universities to offer these lower-cost places. At this point it remains unclear whether competition will erode chances of collaboration between further education and universities (Norton 2012). This is in contrast to the US case, where community colleges are accredited to provide degree-level courses independent of any university involvement and thus compete more fairly with universities offering the same course.

Apart from the case of competition between further education and higher education, which is but a small percentage of overall further education provision, a recent evaluation suggests that the reforms to make further education more competitive have had some impact. This perceived impact was greater for providers with a significant number of competitors. The evaluation also suggested that it will take some time for some to become more ‘commercially minded’ and to embrace the idea that learners and employers should assume

³³ Under recent legislation (DBIS 2012) two further education colleges have successfully lobbied to be able to confer their own higher degrees without university partners.

more of the cost. Public funding is still the largest source of income for most providers (83 per cent of further education colleges). In addition, many providers receive less in fees from employers than they were expected to charge, and competition contributes to lower pricing. This benefits consumers (learners and employers) but also subsidises training, which is expected to be partly funded by employers. The evaluation also found a strong level of collaboration, especially among further education colleges in the same area. But there is also a lack of clarity as to when collaboration veers toward price fixing (BIS 2013).

Overall, US community colleges face fewer competitive pressures from schools and universities, but have experience competing with other providers (for example, private colleges and training providers) in the area of contract training programmes and other non-credit courses.³⁴ Most states support non-credit workforce education with workforce training funds and over half directly specify a role for community colleges as preferred providers. These programmes are seen as revenue-generating for colleges, regardless of state funding. They also provide opportunities for employers to become more engaged with colleges and, for example, to have more input into vocational programmes (Dougherty and Bakia 2000).

This is an activity that English policymakers hope to expand in further education. Further studies could look in more detail at the practices of community colleges and the market conditions that support contract training, to see if suitable lessons can be drawn for England as providers and consumers adjust to a more competitive education and training system. In a time of declining state support for 19-plus programmes, it seems essential that further education colleges expand in this area in ways that require employers and learners to share costs (Keep and Mayhew 2013). The results of the recent BIS evaluation noted above suggest there is still some way to go.

Quality assurance

When it comes to quality assurance, the English and US systems are quite different. The English system for schools and further education is centralised, with a national curriculum, recognised academic and vocational qualifications developed and administered by

³⁴ Contract training falls into the general category of ‘non-credit’ workforce education, courses that provide technical skills for the workplace but are not necessarily credited toward a degree, credential or other award (Van Noy et al. 2008).

independent, government-regulated, awarding bodies, and institutional inspection by government-sponsored agencies. Centralisation of curriculum or of institution-level quality assurance is anathema in the US's federal system, and efforts to create national curricula or standards in America have been largely unsuccessful. The only area where the US government has some sway is with mandatory assessments, but these vary by state and are attached to elementary and secondary school policy rather than post-secondary.

In vocational education, employers and industry are important arbiters of quality assurance, as the value of qualifications partly rests with employers' recognition of them in making hiring decisions. A way to ensure quality is to engage employers/industry in qualifications or vocational programme development. Studies in England indicate that employers are largely left out of the qualifications development process, except for developing national occupational standards from which these qualifications are built. But even this involvement is left to somewhat weak institutions, the SSCs. Although SSCs are licensed by the government to develop standards, the awarding bodies maintain control of the qualifications themselves. Past efforts for employers to provide more than advice to qualifications development have been unsuccessful (for example, Ertl and Stasz 2010).

Quality assurance in the US is a less-regulated and formal business, although employers are encouraged to be involved in developing curriculum and standards for vocational programmes. At one point, skill standards development had a national presence with adoption of the National Skill Standards Act of 1994 to 'serve as a catalyst in stimulating the development and adoption of a voluntary national system of skill standards and of assessment and certification of attainment of skill standards'.³⁵ Implementation was led by the National Skills Standards Board to spearhead development efforts by industry in partnership with education, labour, and community stakeholders. In June 2003, the board was terminated, so standards development is left to professional bodies and states. For the most part, US employers have not demanded systems of skill standards and certifications. Although employers were involved in the National Skills Standards Board and its work, employers did not systematically use standards and assessments in the areas that the board established them (Bailey and Berg 2005).

³⁵ The National Skill Standards Act of 1994 (108 Stat 192, 20 USC 5933).

Some states, like Texas, developed and implemented their own standards. Others, like Washington, still see skill standards as an important vehicle for promoting quality assurance and are working to create or adopt existing standards within its education and training system.

Irrespective of the means by which vocational qualifications are quality-assured, a common problem in the two countries is employers' use of qualifications or credentials in the labour market. The qualification system in England has been criticised for its complexity, frequent changes, and low quality, and evidence shows that some lower-level qualifications have little labour market value. Employers complain that they do not understand the system and therefore have problems recognising the value of qualifications (Wolf 2011). A majority of employers in the US appear not interested in certification and seem to rely more on informal networks and local knowledge of educational institutions to obtain information about job candidates. Lack of labour market regulation means that they can hire and fire to lower costs (in comparison with Europe), making it easier to find workers through trial and error rather than certification (Bailey and Berg 2005).

The US appears to offer few lessons on quality assurance; indeed, its occupational credential system has been judged as less organised than in almost any other OECD country (Kuczera and Field 2013). In contrast, the English system is more regulated,³⁶ and central government can steer the qualifications system. Both countries, however, cite numerous problems, only some of which have to do with perceived or actual quality. Arguably, the shared problem in these systems is perhaps not unexpected where employers are for the most part not obliged to recognise or make hiring decisions based on qualifications/certifications³⁷ and are not systematically engaged in their design or assessment.

Accountability

The US places emphasis on performance measurement and accountability, but mainly for the 'training' part of the education and training system. Autonomy of education institutions is a

³⁶ Under current policy, Ofsted and the Skills Funding Agency will continue to quality-assure colleges and other providers but with a 'lighter touch'. They will still intervene when providers do not meet minimum standards.

³⁷ Occupational certification in the US is much more common at the professional level since doctors, lawyers, nurses, certified public accountants, and other higher-level professions need to be licensed by the states in which they practice.

strong norm in the education and training system, and efforts to hold public institutions accountable for outcomes are rare. It is telling that the state examples indicate more control over community colleges than institutions of higher learning. This partly reflects their relative status in the education and training system.

Community colleges are funded by formula according to enrolments.³⁸ Both Washington and Texas set aside a portion of funding to reward good performance. The Washington model has no set targets and institutions are not in competition for funds. Both reward performance on specific outcomes, linked to the states' strategic plans. This 'carrots but no sticks' approach can help institutions understand their shortcomings and motivate improvement, but there are no consequences for poor performance. Institutional autonomy is preserved and formula funding is guaranteed. Both states experimented with performance budgeting in community colleges, where performance is one indicator in determining the institution's funding, but eventually abandoned this approach because it did not have the expected impact. Colleges were not that motivated to change because the amount of money tied to performance funding was small compared to the overall budget (Dougherty and Hong 2006).

The WIA has accountability measures where funding is attached to negotiated performance targets for workforce investment programmes administered by states and local areas. The WIA also provides rewards for high performance and sanctions for less-than-expected performance. Perkins funds are distributed to local recipients by formula, and states define participation and accountability measures differently, making it difficult to assess states' performance or to report nationally comparable outcomes (Richards et al. 2013). At present there is no mechanism to reward successful local programmes. The government's blueprint for Perkins reauthorisation recommends strengthening accountability measures replacing formula funding with performance-based funding.

England may be said to be moving in a different direction. The latest skills strategy is abolishing performance targets set in earlier policy and is allowing providers to supply the type and volume of training needed in their local area. Crucially, the strategy is also 'abolishing the machinery of centralised control' set up to meet the targets. While the stated aim of policy is to build a responsive, dynamic system with flexibility to respond to local needs, the mechanisms to steer these local responses in a strategic direction may be lacking.

³⁸ Community colleges also receive funds through local tax levies and tuition fees.

Once clear difference between England and the US is the latter's use of negotiated targets (for the WIA and Perkins) rather than permitting states and localities to completely set their own. The use of negotiated targets also provides more strategic leverage so that states are compelled to perform to a standard and those with more ambitious goals can be rewarded.

However, policymakers still maintain control over further education colleges through quality assurance measures. For example, colleges and providers judged 'outstanding' are exempt from Ofsted inspection unless their performance drops. Any inadequate providers will be removed from the list of those eligible for public funding (BIS 2011).

An area where England and the US concur is the use of information as an accountability and quality-assurance tool. This type of 'performance reporting' follows a different theory of action than performance funding. The idea is that information will spur institutional change through greater institutional awareness of performance or public regard (Dougherty and Hong 2005). In England the Office for Standards in Education, Children's Services and Skills (Ofsted) has a new Further Education Data Dashboard that allows school and college governors and the public to access data on the number of learners completing qualifications (academic, vocational, and apprenticeship); destination of learners once they complete their education; and priorities of the LEPs.³⁹ It is especially intended to help college governors in their role as 'holding providers to account for their performance' and to show providers how their performance compares to a set of like institutions. It is also intended to help learners decide among colleges and programmes, which in turn helps drive quality and accountability (BIS 2011). Both Texas and Washington provide similar types of performance data and information for use by various stakeholders.

Overall, the accountability mechanisms in the US appear to have more 'teeth'. However it is also the case that federal measures permit such flexibility that the states vary significantly in the services provided and people served. Thus far there is little evidence that WIA performance targets are correlated with true programme impacts, and policymakers await results of an ongoing experimental study to understand its impact (Decker and Burke 2011). Independent of the WIA, states most frequently adopt some form of performance reporting, which has shown some impact. Because performance funding defines indicators,

³⁹ Available at: <http://dashboard.ofsted.gov.uk/> (accessed 10 July 2014). The dashboard does not yet have information on destinations. Further information on LEPs is found through a link to the National Careers Service web page.

research suggests that institutions become more focused on them and have an explicit picture of what state government expects in exchange for its financial support. Comparative performance information on colleges can affect public perceptions (status competition), which some colleges also respond to (Dougherty and Hong 2005).⁴⁰ With the abolition of performance targets as a way to ‘free up’ further education colleges to respond to local needs (rather than government-established demands), information and a high-stakes national inspection regime become the main vehicle for accountability. Since the Data Dashboard has only been recently launched, it is too soon to tell to what extent it will help drive higher quality or performance.

Place of further education and community colleges

Both England and the US see a central role for further education and community colleges, respectively, in serving the education and training system at the post-secondary level, especially with respect to vocational education, upskilling or reskilling the adult workforce and providing post-compulsory, basic skills education to support social mobility (Grubb 2006). These institutions cite similar broad missions to both serving the community and providing an educational home to many adults who have work and family responsibilities that dictate part-time attendance, or those less able to afford or qualify directly for university-level education.

On the other hand, these institutions are not especially esteemed in their respective nations. Further education colleges generally have been seen as weak institutions in England that need government steering, irrespective of the 1992 Act that make them independent from local authorities, and have significant constraints placed upon them (for example, their inability to confer degrees on their own). Recent policy aims to give them more autonomy, however, to take a leading role in the education and training system. Policy places great responsibility in college governors’ hands. Governors are to hold their colleges to account for ensuring that colleges develop a meaningful relationship with LEPs and support the economic

⁴⁰ Studies have also noted unintended consequences of performance accountability at community colleges, such as the costs associated with gathering data and lowering of standards or restricting admission to increase graduation rates, and of design flaws that do not account for wide differences among colleges, such as the local labour market, students served or missions (for example, Dougherty and Hong 2006).

needs of the area. In addition, ‘where local partners feel the sector is not responding they will be expected to challenge the leadership of the sector locally’ and to take a strong ‘peer role in driving up improvement’ (BIS 2011). Thus, English policy is giving further education more freedom along with more responsibility.

The federal government has little direct power over community colleges, which are governed by states and localities. This produces a highly diverse set of institutions with generally strong ties to local governments (which contribute to their funding) and businesses.

Both further education and community colleges face funding challenges. The decentralised US system produces states where the state’s share of operating funds for community colleges have ranged between 14 per cent in Vermont and 75 per cent in North Carolina, and the local share between 0 per cent and 57 per cent (Dougherty 2009). The funding changes implemented in further education include shifting more costs to learners by introducing a loan programme in the 2013–14 academic year for adult learners age 24-plus studying at level 3 and above, in a model similar to loans for higher education study. The Employer Ownership pilots reroute funds for skill development programmes from further education and other providers to employer-led consortia (BIS 2010).

In the face of funding uncertainties, several commentators suggest that community colleges may have an advantage over further education colleges in developing local revenue streams that can insulate them against changing funding regimes and national priorities (for example, Dougherty 2009). Community colleges have flexibility in both the academic and vocational markets at the post-secondary level, as a high percentage of students attend community college with the intent to study for two years, then transfer to university to complete a bachelor’s degree. While some further education colleges compete with schools for sixth-form students, this is at the secondary rather than post-secondary level. Contract training is also a more common and longstanding feature of community colleges in comparison to further education colleges. By the 1990s over 90 per cent of community colleges were contracting with firms, industry associations, and government agencies to deliver specified training (Dougherty 2010). Recent policy changes in England make for a less certain future for further education colleges. For instance, the funding changes that will implement a loan system for adults studying at level 3 and above could reduce enrolment at some colleges. However, it is too soon to assess the full effects of such changes.

Overall, this review suggests that further education colleges and community colleges have a central role in developing skills for further education and the workplace, and this is recognised by policymakers. Policy in England is providing more freedom and less regulation to further education and has expectations that the sector will increase its role in developing skills in local areas. Recent studies suggest that further education colleges are making some progress in line with policy expectations (BIS 2013), but it is too soon to tell to what extent the sector will be able to rally around the government's vision, especially as public finances will likely remain constrained (Keep 2014).

Making transitions in the education and training system

One aim of the further education reforms is to create a 'ladder' of vocational education and training programmes from community learning to basic skills through to apprenticeships and higher vocational education (BIS 2011). England is characterised by a two-sector system, with further education and higher education institutions treated separately under the assumption that different levels of learning are best taught in organisations with main concerns in either higher education or further education. Government policy in 2009 expanded higher education in further education colleges, and as mentioned some offer bachelor degree-level education in partnership with universities. However, the recent reforms do not tackle the qualifications system directly, which has been identified as a barrier to transitioning from lower to higher levels, especially for vocational students. One issue is that transfer has been linked to programme completion, with little provision to transfer of credits short of that.⁴¹

The US has a coterminous structure, which in theory permits better alignment for transfer between community colleges and universities and opportunity for coordination across sectors to promote workforce development. Policies to aid transfer or transition from one level of education to another have been established in both federal and state policy. An example of federal policy is Tech-Prep, which was incorporated into Perkins as a separate funding title. The legislation defined Tech-Prep as having several components, including a 2+2 design – two years in secondary school and two years in post-secondary school – in a non-duplicative

⁴¹ The national Credit Accumulation and Transfer Scheme (CATS) is implemented at university-level.

sequence of courses with articulation agreements between secondary and post-secondary institutions. Furthermore, state laws have been passed to ease transfer and articulation. A large number of states require that higher education institutions define a core set of courses. Students who take these courses at community college are guaranteed credit at a four-year institution. Several have mandated that community college students who complete an associate's degree are guaranteed status as third-year students when transferring to a four-year college or university. Some states have common course numbering systems so that students receive credit for the course whether it is achieved at a community college or four-year institution. Texas has developed arrangements to ease the transfer of vocational credits so that students in certain fields can go on to university more easily (Dougherty 2010).

A key difference is that transitions in the US often have a legal basis that supports system-wide agreements, while England is still dominated by bilateral arrangements between institutions. A second is the credit system in the US, as opposed to the qualification system in England: the former better supports transfer and transitions. The coterminous US structure also supports opportunity for coordination across education sectors to promote workforce development. It would take significant change for England to move toward a more coterminous structure that could better support transitions. The separation between further education and higher education has long-standing historical roots (Stanton 2009). Similarly, although policymakers have recognised the limitations of the qualifications system, there has been no move to significantly change it. Recent policy provides more flexibility to providers to develop qualifications that meet employers' needs where none exist, but under the condition that it would eventually fit within the established framework (BIS 2011).

CONCLUSIONS

This paper takes a broad look at governance of education and training systems in the US, with particular attention to the role of community colleges, employers and local workforce agencies and at post-compulsory education and training provision, to identify possible lessons for English policy. It by no means covers all aspects of the US experience that might inform education and training policy.

The most striking differences between the US and England concern the governance structures that can guide local actors in the national interest. The highly decentralised US

system is underpinned with federal and state legislation that steers local actors, mainly through inducement strategies but also through mandates. Overall, this creates a forum for strategic planning within states and in concert with national aims, a situation that is absent in England. Current policy has eliminated bodies that formerly had some strategic responsibilities (for example, regional development areas), and replaced it with LEPs that have no statutory standing. A non-governmental agency has key responsibility for strategic oversight (UKCES), but it or LEPs have no direct power and limited funding levers at their disposal.

The US and England both have high aspirations and similar reasons for involving employers in the education and training system. However, both lack the regulatory power to systematically engage most employers in a meaningful way. Both countries can point to many excellent examples of education-employer relationships that ‘work’, but this does not add up to a coherent type of involvement that can serve the education and training system as a whole.

Competition and collaboration are features of both education and training systems. The community colleges face less competition than further education colleges at the secondary and higher education levels, but perhaps more competition in providing non-credit workforce programmes, including contract training. Their experience, for example, in generating revenue with this type of provision, may be instructive for further education colleges moving forward, especially since competitive pricing has reduced employers’ contributions to the cost of training (BIS 2013). Recent evaluation of the unfolding reforms in further education suggests that there are emerging issues around both competition and collaboration that need attention as implementation unfolds.

Quality assurance regimes in the two countries differ substantially, and practices in the US offer no strong lessons for English policy. A similar characteristic is that both countries have faith in the power of information to help improve institutional and programme quality in the education and training ‘market’.

Performance targets are a feature of both England and the US. Federal policy uses accountability more as a planning framework than as a mechanism to reward good performance. The main benefit is to communicate its priorities to lower levels of government by specifying performance indicators. This focuses institutional actors to examine their performance and to make necessary changes to improve it, in the context of local priorities.

Performance targets do not always result in performance improvements, but they at least help keep everyone's eyes on the ball. Current policy in England has moved away from specific targets as a way to 'free up' institutions to better respond to local needs and priorities. For example, it awards funds on a competitive basis to employer-led consortia to develop education and training provision. The government has less money than in the past to fund providers to produce the skills it wants, so it is hoping that competitive funding will produce good ideas and programmes that work locally. This seems a risky venture in the absence of specific aims other than to generate 'more' skills, especially where the scope for strategic planning across the education and training system is weak.

Community colleges and further education colleges share many common features, and further education has borrowed some features of the American model (for example, foundation degrees modelled on associate's degrees). It is also the case that they are not held in especially high esteem in relation to other institutions of higher education in the respective countries. Nonetheless, colleges are seen as central to skills development in both countries (Grubb 2006; Keep 2014). Community colleges have had much more freedom to experiment and innovate and long experience working with employers in the contract-training arena. These and other characteristics may help in times of financial constraints, which colleges in both nations face. Further education colleges may be in a more precarious position due to both funding changes and to greater responsibilities for leading local actors that are being placed upon them. Evaluation of policy changes thus far suggests that it will take some time for further education to become more competitive, more innovative in using the funding it receives, and less reliant on public funds.

An education and training system implies having connections between different levels so that individuals can transition from one level to the next in pursuit of higher skills development. The US system seems better suited to this purpose, as both federal and state policies see this as an important performance outcome indicator, particularly with regard to transitions from community college to four-year institutions. Policy in England aims for a 'ladder' of vocational programmes, but its qualifications system and two-sector system work against this. It has been argued that progression would be enhanced if a single funding agency was responsible for both adult skills and higher education, but there appears to be no movement in this direction (Corney and Fletcher 2007) or in making significant changes to the qualifications system.

References

Bailey, T. and Berg, P. (2005). 'The Vocational Education and Training System in the United States'. Paper prepared for the Second Conference on Vocational Education and Training, Gelsenkirchen, Germany, November 28–29.

Department for Business, Innovation and Skills (BIS). (2011). *New Challenges, New Chances, Further Education and Skills System Reform Plan: Building a World Class Skills System*. London: DBIS. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/145452/11-1380-further-education-skills-system-reform-plan.pdf (accessed 1 June 2013).

BIS (2012). 'Skills for Sustainable Growth'. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32368/10-1274-skills-for-sustainable-growth-strategy.pdf (accessed 1 July 2014).

BIS (2013). 'Evaluation of the "New Challenges, New Chances" Further Education Reform Plan'. BIS research paper no. 140.

Burke, J. C. (2005). 'The Many Faces of Accountability,' in J. C. Burke, *Achieving Accountability in Higher Education: Balancing Public, Academic, and Market Demands*, pp. 1–24. San Francisco, CA: Jossey-Bass.

Carey, K. (2007). 'Truth Without Action: The Myth of Higher-Education Accountability', *Change: The Magazine of Higher Learning* 39(5): 24–9.

Carey, K. and Aldeman, C. (2008). 'Ready to Assemble: A Model State Higher Education Accountability System'. Education Sector at American Institutes for Research. Available at: <http://www.educationsector.org/publications/ready-assemble-model-state-higher-education-accountability-system> (accessed 27 February 2014).

Carnevale, A., Jayasundera, T., and Hansen, A. R. (2012). *Career and Technical Education: Five Ways that Pay Along the Way to the B.A.* Washington, DC: Center on Education and the Workforce, Georgetown University.

Community College Research Center (CCRC) (2014). *Performance Funding: Impacts, Obstacles, and Unintended Outcomes*. New York: Teachers College, Columbia University.

Daugherty, L., C. Goldman, L. Butterfield and T. Miller (2014). *Assessing the Potential to Expand Community College Baccalaureate Programs in Texas*. WR-1048-1-CFAT, Santa Monica, CA: RAND Corporation.

Daugherty, L., Miller, T., Dossani, R. et al. (2013). *Building the Links Between Funding and Quality in Higher-Education: India's Challenge*. Santa Monica, CA: RAND Corporation.

Decker, P. T. and Berk, J. A. (2011). 'Ten Years of the Workforce Investment Act (WIA): Interpreting the Research on WIA and Related Programs', *Journal of Policy Analysis and Management* 30(4): 906–26.

Dougherty, K. J. (2010). 'U.S. Community Colleges and Lessons for British Further Education Colleges', in T. Dolphin and J. Clifton (eds), *Colleges 2020*. London and Newcastle, UK: Institute for Public Policy Research. Available at: <http://ccrc.tc.columbia.edu/publications/us-community-colleges.html> (accessed 20 July 2014).

Dougherty, K. J. (2009). 'English Further Education Through American Eyes'. *Higher Education Quarterly* 63(4): 343–55.

Dougherty, K. J. and Hong, E. (2005). *State Systems of Performance Accountability for Community Colleges: Impacts and Lessons for Policymakers*. Community College Research Center, Teachers College, Columbia University. Available at: <http://ccrc.tc.columbia.edu/media/k2/attachments/state-systems-performance-accountability.pdf> (accessed 10 July 2014).

Dougherty, K. J. and Bakia, M. F. (2000). 'Community Colleges and Contract Training: Content, Origins and Impact', *Teachers College Record* 102(1): 197–243.

Ertl, H., Stanley, J., Huddleston, P. et al. (2009). *Reviewing Diploma Development: Evaluation of the Design of Diploma Qualifications*. Research Report No DCSF-RW080, Department for Children, Schools and Families.

Ertl, H. and Stasz, C. (2010). 'Employing an Employer-Led Design? An Evaluation of the Design of Diplomas', *Journal of Education and Work* 23(4): 301–17.

Ertl, H. and Hayward, G. (2010). 'Caught in the "Triple Lock"? An Evaluation of Governance Structures in the Development of 14-19 Diplomas in England', *Research in Comparative and International Education* 5(3): 316–30.

Froy, F. and Giguere, S. (2010). 'United States', in Local Economic and Employment Development Programme, *Breaking Out of Policy Silos: Doing More with Less*. OECD Publishing.

Grubb, W. N. (2006). 'Vocationalism and the Differentiation of Community Colleges: Lessons from US Community Colleges', *Journal of Further and Higher Education* 30(1): 27–42.

Hughes, M. and Smeaton, B. (No date). *Exploring Employers' Perception of Employer Engagement*. London: Learning and Skills Network.

Jenkins, D. and Shulock, N. (2013). 'Metrics, Dollars, and Systems Change: Learning from Washington State's Student Achievement Initiative to Design Effective Postsecondary Performance Funding Policies'. Community Colleges Research Center, Teachers College, Columbia University. Available at:
<http://ccrc.tc.columbia.edu/media/k2/attachments/student-achievement-initiative-policy-brief.pdf> (accessed 12 July 2014).

Jenkins, D., Ellwein, T. and Boswell, K. (2009). 'Formative Evaluation of the Student Achievement Initiative Learning Year'. Report to the Washington State Board for Community and Technical Colleges and College Spark Washington.

Hoffman, N. (2011). *Schooling in the Workplace*. Cambridge, MA: Harvard Education Press.

Katsinas, S. G., D'Amico, M. M., and Friedel, J. N. (2012). 'Workforce Training in a Recovering Economy: Perceptions of State Community College Leaders'. Tuscaloosa, AL: University of Alabama Education Policy Center.

Keep, E. (2014). 'What Does Skills Policy Look Like Now the Money has Run Out?' Unpublished manuscript.

Keep, E. (2013). 'The Government's Industrial Strategy – What's Missing?' Presentation at the SKOPE Public Policy Forum, Pembroke College, Oxford, 26 November 2013.

Keep, E. and Mayhew, K. (2013). *The Resources Dwindle, An Era Ends? The Implications of Current and Future Government Spending Plans for Education and Training Policy*. ESRC Centre on Skills, Knowledge and Organisational Performance (SKOPE), University of Oxford.

Kis, V. (2011). *Learning for Jobs: OECD Reviews of Vocational Education and Training – United States: Texas*. OECD publishing/OECD.

Kuczera, M. and Field, S. (2013). *A Skills Beyond School Review of the United States*. OECD Reviews of Vocational Education and Training, OECD Publishing/OECD. Available at: <http://dx.doi.org/10.1787/9789264202153-en>.

Machin, S. and Vignoles, A. (2006). *Education Policy in the UK*. Centre for the Economics of Education, London School of Economics.

Miao, K. (2012). *Performance-Based Funding of Higher Education*. Center for American Progress.

McGuinness, A. C. (2002). 'Models of Postsecondary Education Coordination and Governance in the States'. Denver, CO: Education Commission of the States. Available at: <http://www.ecs.org/clearinghouse/34/23/3423.pdf> (accessed 12 February 2014).

McGuinness, A. C. (2001a). 'Governance and Coordination: Definitions and Distinctions'. Denver, CO: Education Commission of the States. Available at: <http://www.ecs.org/clearinghouse/31/62/3162.htm> (accessed 10 February 2014).

McGuinness, A. C. (2001b). 'State Policy and Postsecondary Education'. Denver, CO: Education Commission of the States. Available at: <http://www.ecs.org/clearinghouse/31/61/3161.htm> (accessed 11 February 2014).

Musset, P. and Field, S. (2013). *A Skills Beyond School Review of England*. OECD Reviews of Vocational Education and Training, OECD Publishing/OECD. Available at: <http://dx.doi.org/10.1787/9789264203594-en>.

Norton, S. (2012). *Potential Realised or Same Old Cinderella? Future Options for England's Further Education Sector*. SKOPE research paper no. 109, Universities of Cardiff and Oxford: ESRC Centre on Skills, Knowledge and Organisational Performance.

Payne, J. and Keep, E. (2011). *One Step Forward, Two Steps Back? Skills Policy in England Under the Coalition Government*. SKOPE research paper no. 102, Universities of Cardiff and Oxford: ESRC Centre on Skills, Knowledge and Organisational Performance.

Pugalis, L., Shutt, J., and Bentley, G. (2012). *Local Enterprise Partnerships: Living up to the Hype?* Northampton, UK: Institute of Economic Development.

Rauner, F. and Wittig, W. (2010). 'Differences in the Organisation of Apprenticeship in Europe: Findings of a Comparative Evaluation Study', *Research in Comparative and International Education* (5)3: 237–50.

Richards, A., Klein, S. G., Pfeiffer, J. et al. (2013). 'State Perkins Accountability Congress Final Report'. Berkeley, CA: MPR Associates, Inc.

Richard, D. (2012). *The Richard Review of Apprenticeships*. London: School for Startups. Available at: <http://www.schoolforstartups.co.uk/richard-review/richard-review-full.pdf> (accessed 11 January 2014).

Smith, N. (2013). 'Where Next for Industrial Policy: And What Role for Skills?' SKOPE policy forum 'Industrial Policy and Skills', Pembroke College, University of Oxford, 15 July 2013.

Smith, M. and Fulton, M. (2013). 'Recent Changes to Postsecondary Governance in the States: 2011-2013'. Denver, CO: Education Commission of the States. Available at: <http://www.ecs.org/clearinghouse/01/09/33/10933.pdf> (accessed 9 February 2014).

Stasz, C. and Bodilly, S. (2004). *Efforts to Improve the Quality of Vocational Education in Secondary Schools: Impact of Federal and State Policies*. Santa Monica: CA: RAND Corporation.

State Board for Community and Technical Colleges, Washington State (SBCTC) (2013). 'Student Achievement Initiative'. Available at: www.sbctc.edu/college/estudentachievement.aspx (accessed 2 December 2014).

Stanton, G. (2009). 'A View from Within the English Further Education Sector in the Provision of Higher Education: Issues of Verticality and Agency', *Higher Education Quarterly* 63(4): 419–33.

Stone, J. R. and Lewis, M. V. (2010). 'Governance of Vocational Education and Training in the United States', *Research in Comparative and International Education* 5(3): 274–88.

Texas Skills Standard Board (TSSB) (2013). *TSSB Guidelines for the Development, Recognition and Usage of Skill Standards*. Austin, TX: TSSB. Available at: <http://tssb.org/sites/default/files/wwwpages/publications/GuideDevRecUseSS.pdf> (accessed 2 June 2014).

UK Commission of Employment and Skills (UKCES) (2013). *OECD Review: Skills Beyond School—Background report for England*. Available at: <http://www.ukces.org.uk/assets/ukces/docs/publications/briefing-paper-oecd-background-report-england.pdf> (accessed 9 January 2014).

UK Commission for Employment and Skills (UKCES) (2013b). *Employer Ownership of Skills: Building the Momentum*.

US Department of Education, Institute of Education Sciences, National Center for Education Statistics, Career/Technical Education Statistics (USDE) (2012). *US Background Information Prepared for the OECD Postsecondary Vocational Education and Training “Skills Beyond School” Study*. Washington, DC. Available at: <http://nces.ed.gov/surveys/ctes/pdf/PostsecVET.pdf> (accessed 10 January 2014).

US Department of Education, Office of Vocational and Adult Education (USDE) (2013). *State Perkins Accountability Congress: Final Report*. Washington, D.C. Available at: http://www.rti.org/pubs/spac_final_report_february_2013.pdf (accessed 10 March 2014).

US Department of Education, Office of Vocational and Adult Education (2012b). *Investing in America's Future: A Blueprint for Transforming Career and Technical Education*. Washington, D.C. Available at: <http://www2.ed.gov/about/offices/list/ovae/pi/cte/transforming-career-technical-education.pdf> (accessed 10 March 2014).

Van Noy, M., Jacobs, J., Korey, S. et al. (2008). *The Landscape of Noncredit Workforce Education: State Policies and Community College Practices*. Community College Research Center, Teachers College, Columbia University. Available at: <http://ccrc.tc.columbia.edu/media/k2/attachments/noncredit-workforce-education-policy-practice-brief.pdf> (accessed 20 July 2014).

Workforce Innovation and Opportunities Act (WIOA) (2014). Available at <http://www.dol.gov/WIOA/> (accessed 20 January 2015).

Workforce Training and Education Coordinating Board (WTECB) (2013a). ‘Skills Beyond School: OECD Review of Post-Secondary CTE – State Background Report for the US’. Washington State.

Workforce Training and Education Coordinating Board (WTECB) (2013b). *Washington Employer Survey: A Survey of Employer Needs and Practices*. Olympia, WA: WTECB. Available at: <http://www.wtb.wa.gov/Documents/Employersurvey2012-Summary.pdf> (accessed 8 June 2014).

Wolf, A. (2011). *Review of Vocational Education: The Wolf Report*. London: Department for Education.

Zinth, J. D. (2011). *P-20 Governance*. Denver: CO, Education Commission of the States. Available at: <http://www.ecs.org>.